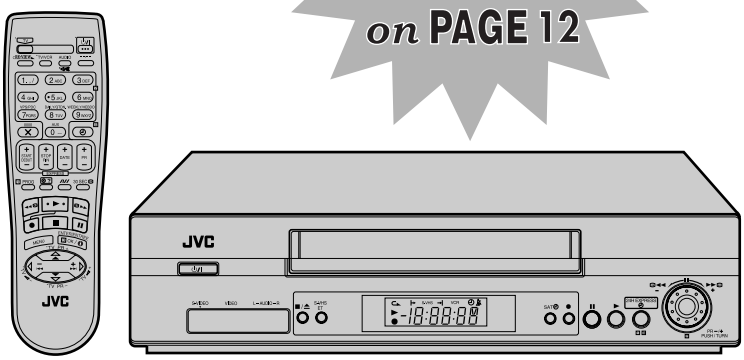
JVC

ENGLISH

VIDEO CASSETTE RECORDER

HR-S7950EU



SHOWVIEW® DELUXE Hi-Fi S-VHS 625

Super VHS ET

INSTRUCTIONS

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LPT0651-001A

EN

Safety Precautions

The rating plate and the safety caution are on the rear of the unit.

WARNING: DANGEROUS VOLTAGE INSIDE

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

CAUTION

- When you are not using the recorder for a long period of time, it is recommended that you disconnect the power cord from the mains outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the mains outlet prior to connecting or disconnecting any signal lead or aerial.

WARNING

There are two different types of SECAM colour systems: SECAM-L, used in FRANCE (also called SECAM-West), and SECAM-B, used in Eastern European countries (also called SECAM-East).

1. This recorder can also receive SECAM-B colour television signals for recording and playback.
2. Recordings made of SECAM-B television signals produce monochrome pictures if played back on a video recorder of SECAM-L standard, or do not produce normal colour pictures if played back on a PAL video recorder with SECAM-B system incorporated (even if the TV set is SECAM-compatible).
3. SECAM-L prerecorded cassettes or recordings made with a SECAM-L video recorder produce monochrome pictures when played back with this recorder.
4. This recorder cannot be used for the SECAM-L standard. Use a SECAM-L recorder to record SECAM-L signals.

IMPORTANT

- Please read the various precautions on pages 2 and 3 before installing or operating the recorder.
- It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

S-VHS 625 SHOWVIEW® DELUXE

- Cassettes marked “S-VHS” and “VHS” can be used with this video cassette recorder. However, S-VHS recordings are possible only with cassettes marked “S-VHS”.
  By using the S-VHS ET function, it is possible to record and play back with S-VHS picture quality on VHS cassettes with this recorder.
- SHOWVIEW is a registered trademark of Gemstar Development Corporation. The SHOWVIEW system is manufactured under licence from Gemstar Development Corporation.

For Italy:
"It is declared that this product, brand JVC, conforms to the Ministry Decree n. 548 of 28 Aug.'95 published in the Official Gazette of the Italian Republic n. 301 of 28 Dec.'95"

The STANDBY/ON ⏻/I button does not completely shut off mains power from the unit, but switches operating current on and off. "⏻" shows electrical power standby and "I" shows ON.

Video tapes recorded with this video recorder in the LP/EP (Long Play/Extended Play) mode cannot be played back on a single-speed video recorder.

When the equipment is installed in a cabinet or a shelf, make sure that it has sufficient space on all sides to allow for ventilation (10 cm or more on both sides, on top and at the rear.)

When discarding batteries, environmental problems must be considered and the local rules or laws governing the disposal of these batteries must be followed strictly.

Failure to heed the following precautions may result in damage to the recorder, remote control or video cassette.

1. **DO NOT place the recorder ...**
   ... in an environment prone to extreme temperatures or humidity.
   ... in direct sunlight.
   ... in a dusty environment.
   ... in an environment where strong magnetic fields are generated.
   ... on a surface that is unstable or subject to vibration.
2. **DO NOT block the recorder's ventilation openings or holes.**
   (If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)
3. **DO NOT place heavy objects on the recorder or remote control.**
4. **DO NOT place anything which might spill on top of the recorder or remote control.**
   (If water or liquid is allowed to enter this equipment, fire or electric shock may be caused.)
5. **DO NOT expose the apparatus to dripping or splashing.**
6. **DO NOT use this equipment in a bathroom or places with water. Also DO NOT** place any containers filled with water or liquids (such as cosmetics or medicines, flower vases, potted plants, cups, etc.) on top of this unit.
7. **DO NOT place any naked flame sources, such as lighted candles, on the apparatus.**
8. **AVOID violent shocks to the recorder during transport.**

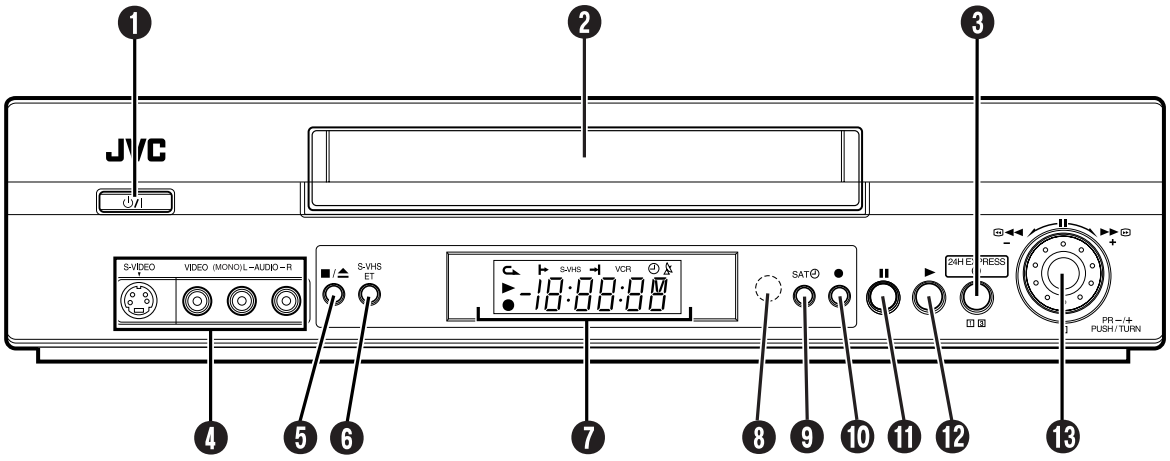
MOISTURE CONDENSATION
Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions—just as water droplets form in the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the recorder turned on for a few hours to let the moisture dry.

ATTENTION:

To mobile phone users:
Using a mobile phone in the vicinity of the recorder may cause picture vibration on the TV screen or change the screen to a blue back display.

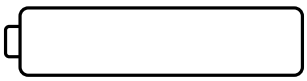
On placing the recorder:
Some TVs or other appliances generates strong magnetic fields. Do not place such appliance on top of the recorder as it may cause picture disturbance.

FRONT VIEW



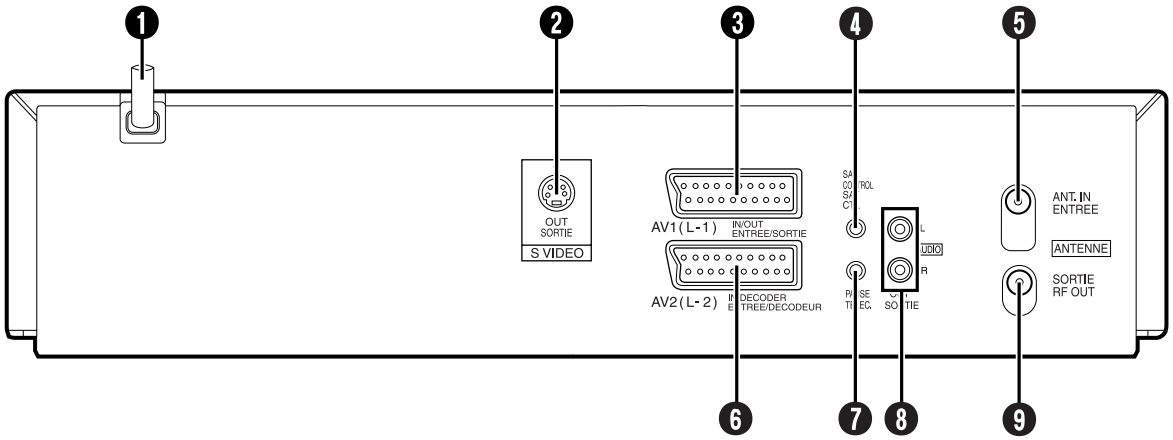
❶ STANDBY/ON ⏻/I Button ☞ pg. 12
❷ Cassette Loading Slot
❸ 24H EXPRESS ◴ Button ☞ pg. 32
❹ S-VIDEO/VIDEO/AUDIO Input Connectors ☞ pg. 40
❺ Stop/Eject ■/⏏ Button ☞ pg. 20, 24
❻ S-VHS ET Button ☞ pg. 26
❼ Front Display Panel ☞ pg. 6
❽ Infrared Beam Receiving Window
❾ SAT◴ Button ☞ pg. 35
❿ Record ● Button ☞ pg. 24
⓫ Pause ❚❚ Button ☞ pg. 21
⓬ Play ► Button ☞ pg. 20
⓭ Advanced JOG Dial ☞ pg. 20, 32

Connector cover



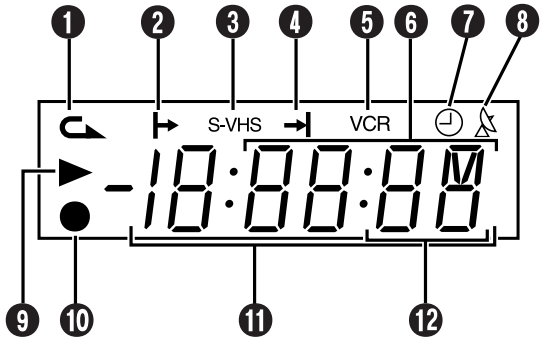
Attach the provided connector cover when you do not use the front panel connectors.
To attach it, insert the cover's left tab to the recorder's front panel connector part, then push in the cover's right side.
To remove it, press the cover's left side.

REAR VIEW



❶ Mains Power Cord ☞ pg. 10
❷ S VIDEO OUT Connector ☞ pg. 11
❸ AV1 (L-1) IN/OUT Connector ☞ pg. 10, 41, 44, 45, 46
❹ SAT CONTROL Connector ☞ pg. 17
❺ ANT. IN Connector ☞ pg. 10
❻ AV2 (L-2) IN/DECODER Connector ☞ pg. 17, 41, 44, 45, 46
❼ Remote PAUSE Connector ☞ pg. 40
❽ AUDIO OUT (L/R) Connectors ☞ pg. 47
❾ RF OUT Connector ☞ pg. 10

FRONT DISPLAY PANEL

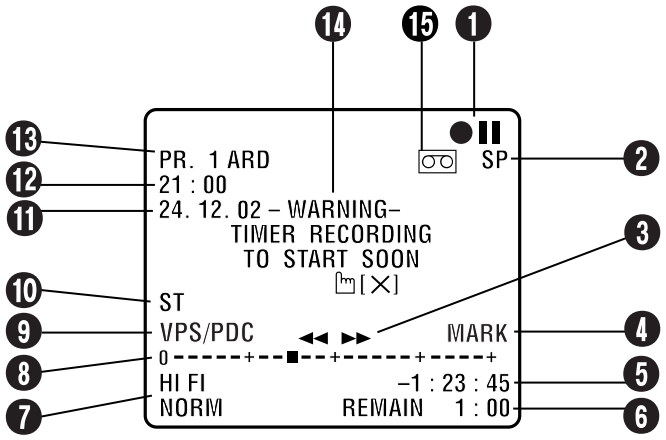


❶ Instant REVIEW Indicator ☞ pg. 22
❷ Start Time Indicator (▸|) ☞ pg. 28, 32
❸ S-VHS Indicator ☞ pg. 26, 51
❹ Stop Time Indicator (|◂) ☞ pg. 28, 32
❺ VCR Indicator ☞ pg. 25
❻ Channel/Clock/Remain Display ☞ pg. 15
Mode Display (L-1, L-2, F-1, S-1 or SAt*)
** When "L-2 SELECT" is set to "SAT" (☞ pg. 43), "SAt" appears instead of "L-2".*

❼ "Timer" Indicator ☞ pg. 29, 31, 32
❽ Automatic Satellite Programme Recording Indicator ( ) ☞ pg. 35
❾ Play Indicator
❿ Record Indicator
⓫ Counter Display
(The counter can display up to +/– "19:59:59". If the playback or recording time exceeds this limit the display starts to count from "0:00:00".)
⓬ Tape Speed SP/LP/EP ☞ pg. 24

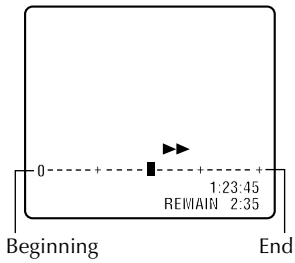
ON-SCREEN DISPLAY

When “O.S.D.” is set to “ON” (☞ pg. 49), various operational indicators appear on the TV screen.



❶ Operation Mode Indicators
❷ Tape Speed SP/LP/EP
❸ Tape Direction
❹ Index MARK Indicator ☞ pg. 24
❺ Counter Display
❻ Tape Remaining Time Indicator ☞ pg. 25
❼ Audio Mode Display ☞ pg. 23
❽ Tape Position Indicator

The tape position indicator appears on the TV screen when you press ◄◄ or ►► from the Stop mode or perform an Index Search (☞ pg. 22). The position of “▮” in relation to “0” (beginning) or “+” (end) shows you where you are on the tape.



NOTE:

Depending on the type of tape being used, the tape position indicator may not appear correctly.

❾ VPS/PDC Indicator ☞ pg. 29, 31
❿ Type of Broadcast ☞ pg. 26
⓫ Current Day/Month/Year
⓬ Clock Display
⓭ Channel Position Number and Station Name/ Auxiliary Input Indicator (L-1, L-2, F-1, S-1 or SAT*)

** When “L-2 SELECT” is set to “SAT” (☞ pg. 43), “SAT” appears instead of “L-2”.*

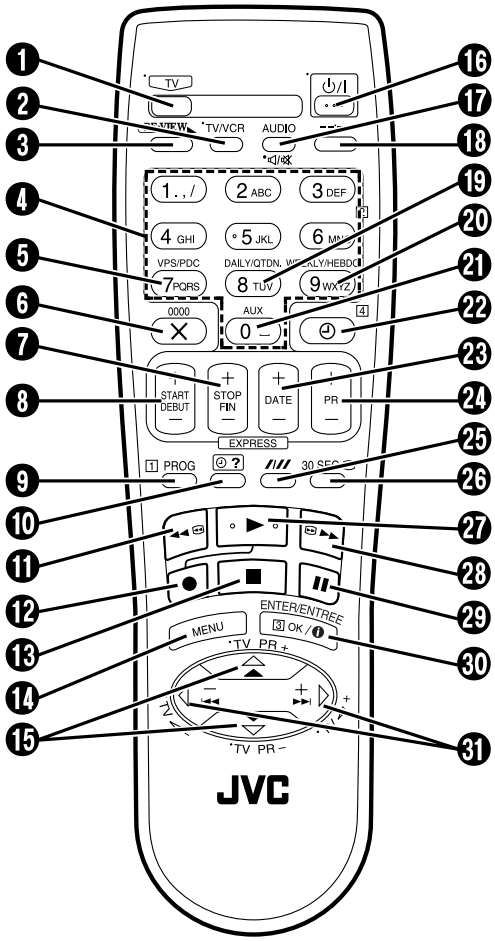
⓮ Timer Warning Display

A warning appears on the TV screen to tell you that the timer-recording is to start in 5 minutes if you’re not in the Timer mode at that time. The warning blinks for the entire 5 minutes leading up to the start of timer recording. To clear the display, press × on the remote control.

S-VHS ET Indicator
(S-VHS ET : ON/S-VHS ET : OFF) ☞ pg. 26, 51

⓯ “Cassette Loaded” Mark

REMOTE CONTROL



❶ TV Button ☞ "Operating JVC TVs" on page 9
❷ TV/VCR Button ☞ pg. 25 and "Operating JVC TVs" on page 9
❸ REVIEW Button ☞ pg. 22
❹ Number Keys ☞ pg. 24, 28
❺ VPS/PDC Button ☞ pg. 29, 31
❻ Cancel × Button ☞ pg. 33
0000 Button ☞ pg. 25
❼ STOP +/– Button ☞ pg. 30
❽ START +/– Button ☞ pg. 30
❾ PROG Button ☞ pg. 28
❿ Programme Check ◴ ? Button ☞ pg. 33
⓫ Rewind ◄◄ Button ☞ pg. 20, 21
⓬ Record ● Button ☞ pg. 24
⓭ Stop ■ Button ☞ pg. 20, 24
⓮ MENU Button ☞ pg. 16
⓯ △ ▽ Button ☞ pg. 12
TV PR +/– Button ☞ "Operating JVC TVs" on page 9
⓰ STANDBY/ON ⏻/I Button ☞ pg. 12
⓱ AUDIO Button ☞ pg. 23
🔇 (TV Muting) Button ☞ "Operating JVC TVs" on page 9
⓲ Display – – : – – Button ☞ pg. 25
⓳ DAILY Button ☞ pg. 29, 31
⓴ WEEKLY Button ☞ pg. 29, 31
㉑ AUX Button ☞ pg. 40
㉒ Timer◴ Button ☞ pg. 29, 31
㉓ DATE +/– Button ☞ pg. 30
㉔ PR +/– Button ☞ pg. 24
㉕ Auto Tracking /// Button ☞ pg. 23
SP/LP/EP Button ☞ pg. 24
㉖ 30 SEC Button ☞ pg. 22
㉗ Play ► Button ☞ pg. 20
㉘ Fast Forward ►► Button ☞ pg. 20, 21
㉙ Pause ❚❚ Button ☞ pg. 21
㉚ OK Button ☞ pg. 13
Information ❶ Button*
** If you press this button when "O.S.D." is set to "ON" (☞ pg. 49), you can see the current recorder status on the TV screen.*
㉛ ◁ ▷ Button ☞ pg. 21, 22
TV ◿ +/– Button ☞ "Operating JVC TVs" on page 9

Buttons with a small dot on the left side of the name can also be used to operate your JVC TV while holding down the **TV** button. (☞ "Operating JVC TVs" below)

This remote control transmits A code signals only; it is not applicable to B code signals.

How To Use

The remote control can operate most of your video recorder's functions, as well as basic functions of JVC TV sets. (☞ "Operating JVC TVs" below)

- Point the remote control toward the receiving window.
- The maximum operating distance of the remote control is about 8 m.

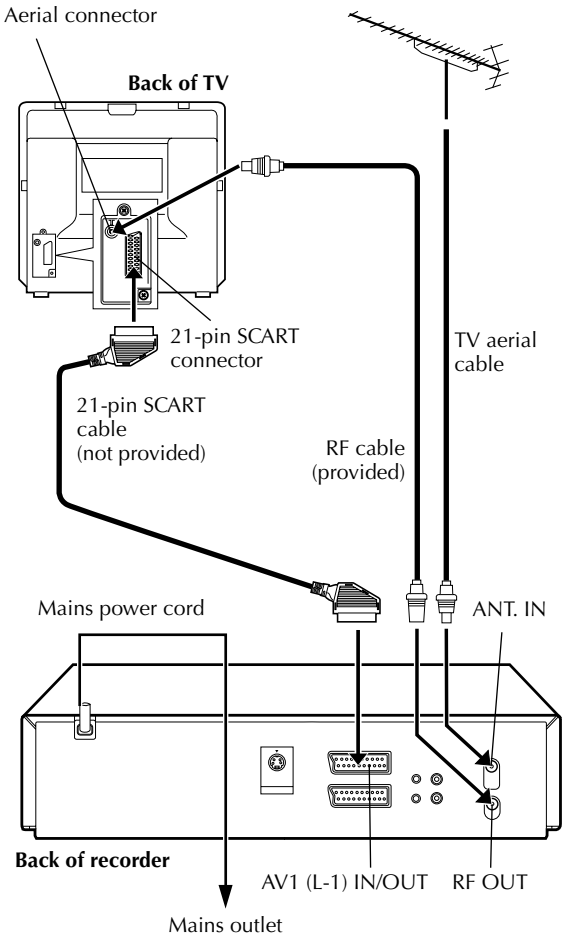
Operating JVC TVs

To operate your TV, while holding down the **TV** button, press the corresponding button: ⏻/I, **TV/VCR**, **TV PR +/–**, **TV** ◿**+/–**, 🔈/🔇 (TV Muting).

NOTES:

- *When inserting the batteries, be sure to insert in the correct directions as indicated under the battery cover.*
- *Depending on the type of JVC TV, some or all functions may not be operated using the remote control.*
- *If the remote control doesn't work properly, remove its batteries, wait a short time, replace the batteries and then try again.*

Basic Connections



Make AV connection if your TV has a 21-pin AV input connector (SCART) in order to reduce the possibility of interference. With AV connection, you can enjoy stereo playback of video tapes if you are using a stereo TV.

NOTES:

- *The AV1 (L-1) IN/OUT connector accepts and delivers either a composite signal (regular video signal) or a Y/C signal (a signal in which the luminance and chrominance signals are separated). If your TV's 21-pin AV input connector (SCART) is compatible with the Y/C signal, set "L-1 OUTPUT" to "S-VIDEO" after the connection and the initial settings are completed (☞ pg. 42). You can obtain high-quality S-VHS pictures. (For connection, be sure to use a 21-pin SCART cable that is compatible with the Y/C signal.)*
- *Set your TV to the VIDEO (or AV), Y/C, or RGB mode according to the type of your TV's SCART connector.*
- *For switching the TV's mode, refer to the instruction manual of your television.*
- *To obtain high-quality S-VHS pictures, you can also use the S-VIDEO connection described on page 11.*

It's essential that your video recorder be properly connected.

THESE STEPS MUST BE COMPLETED BEFORE ANY VIDEO OPERATION CAN BE PERFORMED.

1 Check the contents.

Make sure the package contains all of the accessories listed in "SPECIFICATIONS" on page 67.

2 Situate the recorder.

Place the recorder on a stable, horizontal surface.

3 Connect the recorder to TV.

The connection method you use depends on the type of TV you have.

RF Connection

■ **To connect to a TV with NO AV input connectors . . .**

1 Disconnect the TV aerial cable from the TV.
2 Connect the TV aerial cable to the ANT. IN connector on the rear panel of the recorder.
3 Connect the provided RF cable between the RF OUT connector on the rear panel of the recorder and the TV's aerial connector.

AV Connection

■ **To connect to a TV with AV input connectors . . .**

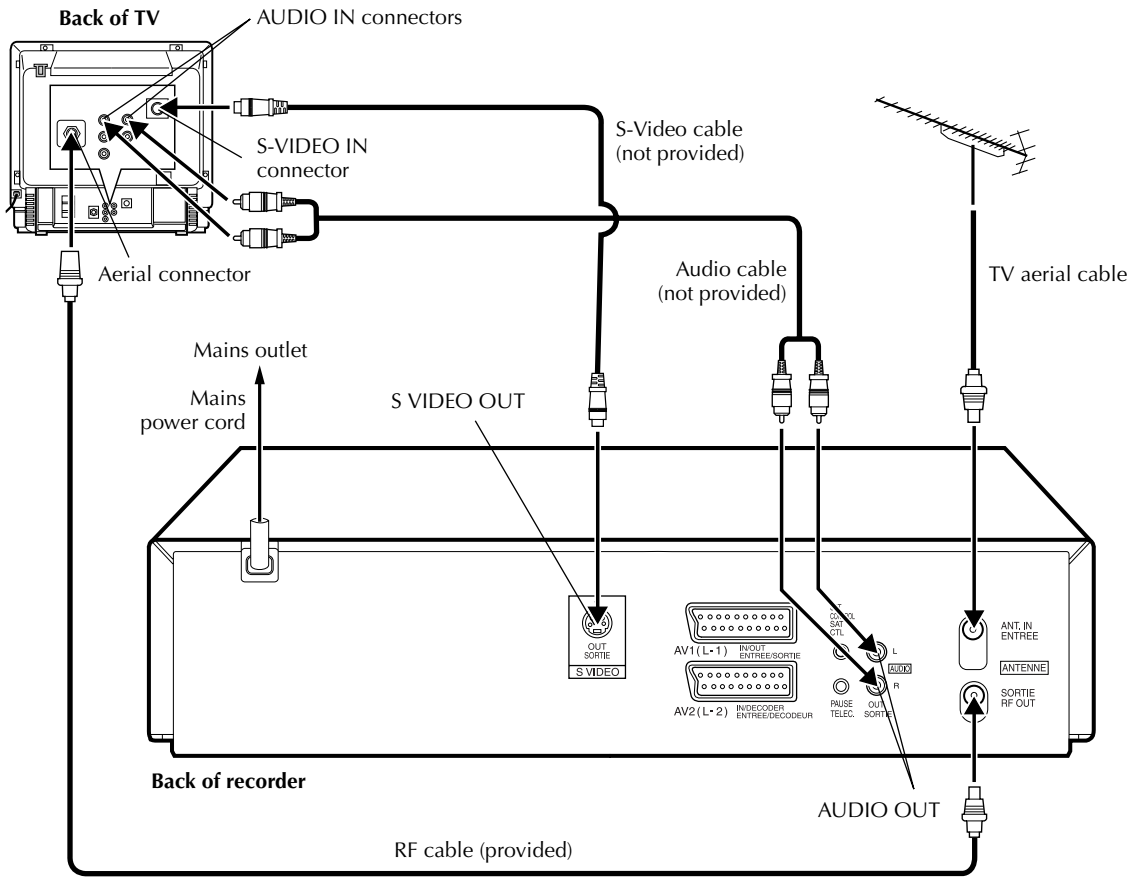
1 Connect the aerial, recorder and TV as per "RF Connection".
2 Connect an optional 21-pin SCART cable between the AV1 (L-1) IN/OUT connector on the rear panel of the recorder and the TV's 21-pin SCART connector.

4 Connect the recorder to mains.

Plug the end of the mains power cord into a mains outlet.

After the connection is completed, perform "Auto Set Up" on page 12.

S-VIDEO Connection



■ **To connect to a TV with S-VIDEO/AUDIO IN connectors . . .**

1 Connect the recorder to TV.

1 Connect the aerial, recorder and TV as per "RF Connection" (☞ pg. 10).
2 Connect the recorder's S VIDEO OUT connector to the TV's S-VIDEO IN connector.
3 Connect the recorder's AUDIO OUT connectors to the TV's AUDIO IN connectors.

2 Connect the recorder to mains.

Plug the end of the mains power cord into a mains outlet.

NOTES:

- *You can obtain high-quality S-VHS pictures.*
- *With S-VIDEO connection, you cannot use the Preset Download function (☞ pg. 14).*
- *If your TV is not stereo-capable, use the recorder's AUDIO OUT connectors to connect to an audio amplifier for Hi-Fi stereo sound reproduction. (☞ pg. 47)*
- *To operate the recorder with your TV using the S-VIDEO connection, set your TV to its AV mode.*
- *For switching the TV's mode, refer to the instruction manual of your television.*

After the connection is completed, perform "Auto Set Up" on page 12.

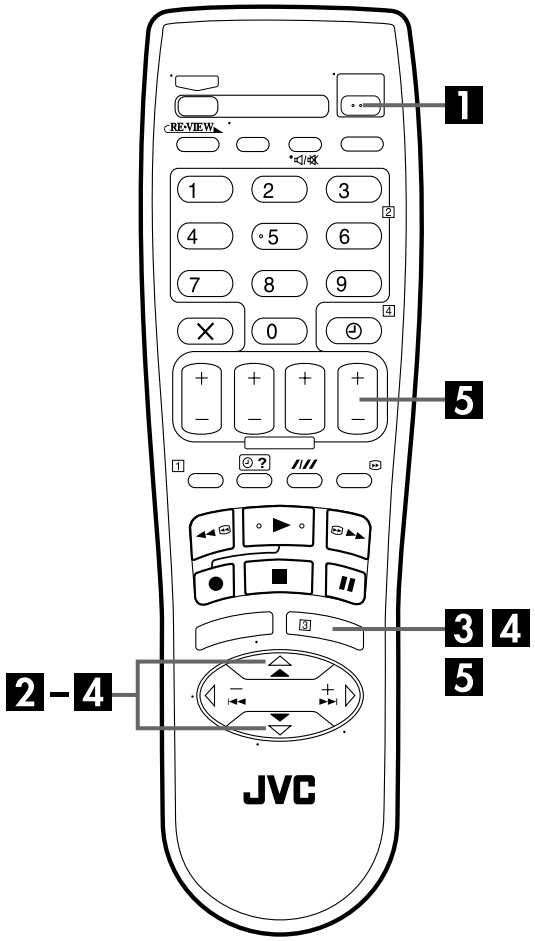
Auto Set Up

Auto Channel Set/Auto Clock Set/ Auto Guide Program Number Set

After the ⏻/I button on the recorder or remote control is pressed for the first time to power on the recorder, by simply selecting your country*, the Auto Set Up function sets the tuner channels, clock** and Guide Program numbers automatically.

** If you live in Belgium (BELGIUM) or Switzerland (SUISSE), you also need to select your language.*

*** If you live in Hungary (MAGYARORSZÁG), Czech Republic (ČESKÁ REPUBLIKA), Poland (POLSKA) or other countries in Eastern Europe (OTHER EASTERN EUROPE), set the clock manually.*



Before starting, make sure of the following:

- The TV aerial cable should be connected to the recorder.
- The recorder's mains power cord should be connected to a mains outlet.
- The TV should be set to its AV mode (with AV connection ☞ pg. 10) or UHF channel 36 (with RF connection ☞ pg. 10).

1 Turn on the recorder.

Press ⏻/I on the recorder or remote control. The Country Set display appears on the TV screen.

NOTE:

If you have connected your TV to the recorder with RF connection and the on-screen display appearing on UHF channel 36 looks distorted, perform "Video Channel Set" on page 62.

2 Select your country.

Press △▽ to move the highlight bar (pointer) to your country's name.

(Example) DEUTSCHLAND is selected.

NOTES:

- *If you have selected BELGIUM or SUISSE, go to step **3**.*
- *If you have selected MAGYARORSZÁG, ČESKÁ REPUBLIKA, POLSKA or OTHER EASTERN EUROPE, press **OK**. The Clock Set screen appears. Set the clock manually (☞ pg. 60), then go to step **4**.*
- *If you have selected any other country name, go to step **4**.*

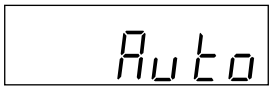
3 Select the language.

Press **OK**. The Language Set display appears on the TV screen.
Press △▽ to move the highlight bar (pointer) to the language of your choice.
(Example) DEUTSCH is selected.

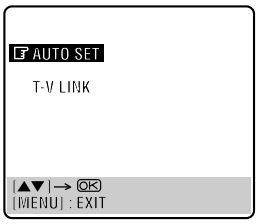
4 Perform Auto Set Up.

Press **OK**. The AUTO SET/T-V LINK display appears on the front display panel and/or on the TV screen.

On the front display panel
Press △▽ to select "Auto" and press **OK** or ▷.

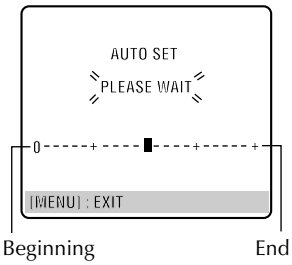


On the on-screen display
Press △▽ to move the highlight bar (pointer) to "AUTO SET" and press **OK** or ▷.



"Auto" blinks on the front display panel; do NOT press any button on the recorder or remote control until the front display panel shows either the display as illustrated in step **5** or "– –:– –" as illustrated on page 15.

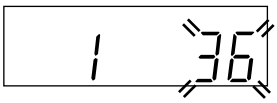
- If you are using the on-screen display, the AUTO SET screen will appear. As Auto Set Up progresses, the "▮" mark on the TV screen moves from left to right.

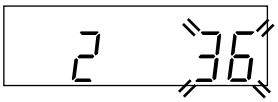


- When you have connected the video recorder to a TV offering T-V Link via a fully-wired 21-pin SCART cable (☞ pg. 10) and the TV is turned on, the recorder automatically performs the Preset Download (☞ pg. 14) even if you select "Auto" or "AUTO SET" for Auto Set Up function.

5 Confirm/Set video channel.

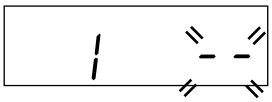
With RF connection
The video channel that is shown on the display panel is your video channel. Press **OK**.





- If you have selected MAGYARORSZÁG, ČESKÁ REPUBLIKA, POLSKA or OTHER EASTERN EUROPE in step **2** on page 12, "2" appears instead of "1".
- To view picture signals from the recorder, set your TV to the video channel.

With AV connection
Press **PR –** until the display panel shows "1 – –" (or "2 – –"). Now the video channel is set to off. Then press **OK**.



- To view picture signals from the recorder, set your TV to its AV mode.

ATTENTION

Once you have performed Auto Set Up, even if the recorder's memory backup has expired, all the stored stations and their Guide Program numbers remain in the recorder's memory and the recorder will not perform Auto Set Up again. You only need to set the clock. (☞ pg. 60)
If you have moved to a different area, perform each setting as required.
- Video channel setting (for RF connection users) ☞ pg. 62
- Tuner setting ☞ pg. 54
- Clock setting ☞ pg. 60

If a new station starts broadcasting in your area, perform tuner setting (☞ pg. 54) and, if necessary, video channel setting (☞ pg. 62).

NOTES:

- *In the area where no TV station transmits a PDC (Programme Delivery Control) signal, the recorder can perform neither Auto Clock Set nor Auto Guide Program Number Set.*
- *If there is a power cut, or if you press ⏻/I or **MENU** while Auto Set Up is in progress, Auto Set Up will be interrupted; be sure to turn off the recorder power once and try again from step **1**.*
- *Auto Clock Set may not function properly depending on the reception condition.*
- *If no sound accompanies the picture or the audio sounds unnatural on some channels that have been stored by Auto Set Up, the TV system setting for those channels may be incorrect. Select the appropriate TV system for those channels (☞ pg. 57, "INFORMATION").*

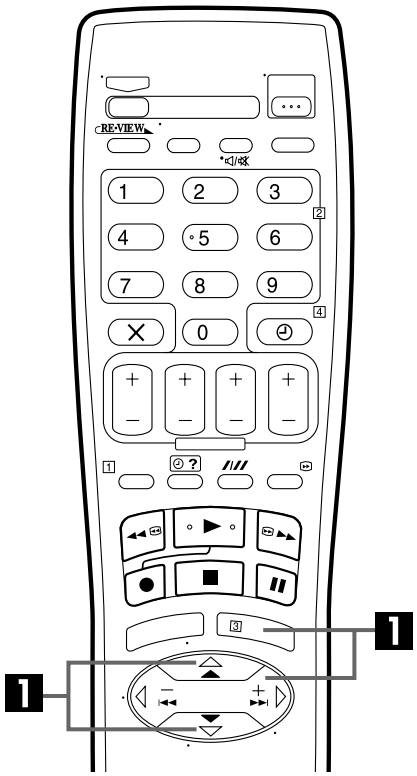
Preset Download

Auto Channel Set by Downloading from TV/Auto Clock Set/Auto Guide Program Number Set

ATTENTION

You can use this function only with a TV offering T-V Link, etc.* Be sure to use a fully-wired 21-pin SCART cable.

* *Compatible with TVs offering T-V Link, EasyLink, Megalogic, SMARTLINK, Q-Link, DATA LOGIC or NexTView Link via fully-wired 21-pin SCART cable. The degree of compatibility and available functions may differ by system.*



NOTES:

- *For details, refer to the instruction manual of your TV.*
- *In the area where no TV station transmits a PDC (Programme Delivery Control) signal, the recorder can perform neither Auto Clock Set nor Auto Guide Program Number Set.*
- *If there is a power cut, or if you press ⏻/I or **MENU** while downloading or set up is in progress, it will be interrupted; be sure to turn off the recorder power once and try again from the beginning.*
- *Auto Clock Set may not function properly depending on the reception condition.*
- *On this recorder, the characters available for station names (ID) are A–Z, 0–9, –, ✻, + and ⎵ (space). Some names of downloaded stations may differ from those of your TV (☞ pg. 58).*

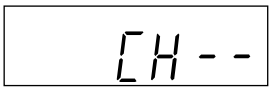
If you have connected the recorder to your TV via the AV connection (☞ pg. 10), the recorder will automatically perform Preset Download instead of the Auto Set Up in step **4** on page 13. After downloading, the recorder sets the clock and Guide Program numbers automatically.

Perform steps **1** to **3** of "Auto Set Up" on page 12 before continuing.

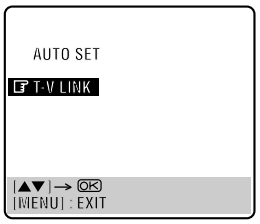
1 Perform Preset Download.

Press **OK**. The AUTO SET/T-V LINK display appears on the front display panel and/or on the TV screen.

On the front display panel
Press △▽ to select "CH – –" and press **OK** or ▷.

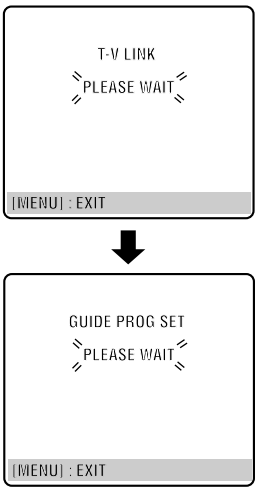


On the on-screen display
Press △▽ to move the highlight bar (pointer) to "T-V LINK" and press **OK** or ▷.



Preset positions on the front display panel increase from "CH1"; do NOT press any button on the recorder or remote control until the front display panel shows clock time, "(CH) 1" or "– –:– –" as illustrated on page 15.

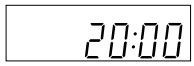
- If you are using the on-screen display, the T-V LINK screen will appear. Then the GUIDE PROG SET screen will appear during Guide Program Number Set. When Preset Download is completed, "COMPLETED" appears for about 5 seconds, then the normal screen appears.
- If you press any button on the recorder or remote control while downloading is in progress, it will be interrupted.



2 Set the video channel.

Set the video channel to off manually. (☞ pg. 62)

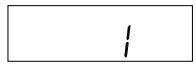
Results of Auto Set Up/Preset Download appear on the front display panel

A 

If both Auto Channel Set and Auto Clock Set have been performed successfully, the correct current time is displayed.

Turn on the TV and select its video channel or AV mode, then make sure that all necessary stations have been stored in the recorder's memory by using the **PR** button(s).

- If station names (ID – ☞ pg. 59) have also been stored in the recorder's memory, the station name will be displayed at the top left corner of the TV screen for about 5 seconds when the recorder is tuned to a different station.
- If you want to set the tuner manually such as to add or skip channels, to change channel positions, or to set or change station names, see pages 56 – 59.

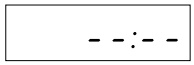
B 

If Auto Channel Set has succeeded but Auto Clock Set has not, "1" (channel position) is displayed.

1 Turn on the TV and select its video channel or AV mode, then make sure that all necessary stations have been stored in the recorder's memory by using the **PR** button(s).

- If station names (ID – ☞ pg. 59) have also been stored in the recorder's memory, the station name will be displayed at the top left corner of the TV screen for about 5 seconds when the recorder is tuned to a different station.
- If you want to set the tuner manually such as to add or skip channels, to change channel positions, or to set or change station names, see pages 56 – 59.

2 Perform "Clock Set" on page 60.

C 

If both Auto Channel Set and Auto Clock Set have failed, "– –:– –" is displayed.

Make sure the cables are connected properly and turn off the recorder's power once, then turn the recorder's power back on again.

The Country Set display appears on the TV screen; perform "Auto Set Up" on page 12 or "Preset Download" on page 14 again.

IMPORTANT

- To check if the Guide Program numbers have been set correctly, perform the SHOWVIEW Timer Programming (☞ pg. 28).
- In certain reception conditions, station names may not be stored correctly, and auto Guide Program Number Set may not work properly. If the Guide Program numbers are not set properly when you timer-record a TV programme using the SHOWVIEW system, the recorder will record a TV programme of a different station. When programming the timer using the SHOWVIEW system, be sure to check the desired channel is selected correctly (☞ pg. 28, "SHOWVIEW® Timer Programming").
- Your video recorder memorizes all detected stations even if reception of some of them is poor. You can delete those stations with an unacceptable picture (☞ pg. 57, "Delete A Channel").

INFORMATION

Language for the on-screen display

Auto Set Up also selects the language automatically for the on-screen display depending on the Country setting you have made in step **2** on page 12 (unless you have selected BELGIUM or SUISSE), as shown below.

SUOMI	→ SUOMI	DANMARK	→ DANSK	NEDERLAND	→ NEDERLANDS
PORTUGAL	→ ENGLISH	ÖSTERREICH	→ DEUTSCH	GREECE	→ ENGLISH
DEUTSCHLAND	→ DEUTSCH	ČESKÁ REPUBLIKA	→ ČEŠTINA	OTHER WESTERN EUROPE	→ ENGLISH
POLSKA	→ POLSKI	ITALIA	→ ITALIANO	OTHER EASTERN EUROPE	→ ENGLISH
NORGE	→ NORSK	MAGYARORSZÁG	→ MAGYAR		
SVERIGE	→ SVENSKA	ESPAÑA	→ CASTELLANO		

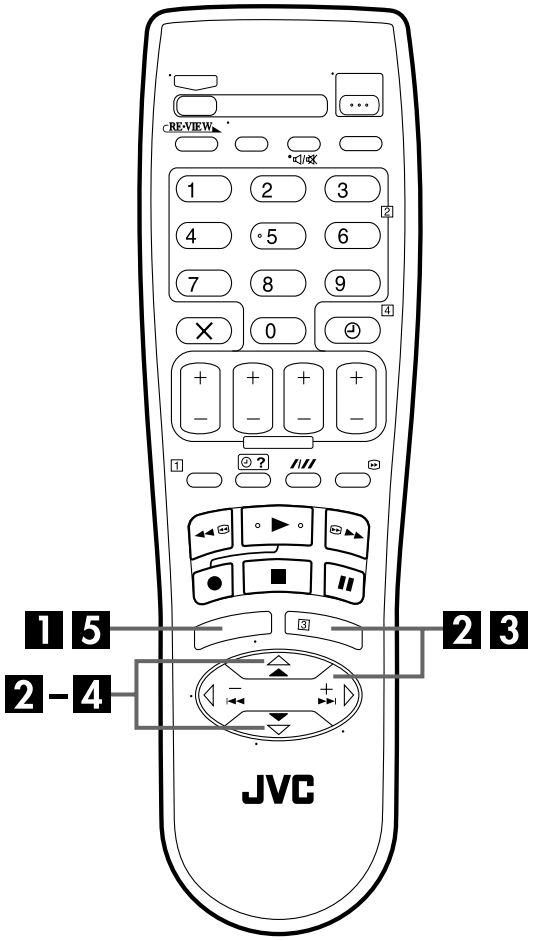
If you want to change the language setting manually, see "Language" on page 16.

Just Clock

Your recorder is equipped with the Just Clock function which provides accurate time keeping through automatic adjustments at regular intervals, by reading data from a PDC signal. If you want to take advantage of this function, simply set it to "ON" (☞ pg. 60, "Just Clock").

Language

Turn on the TV and select the video channel (or AV mode).



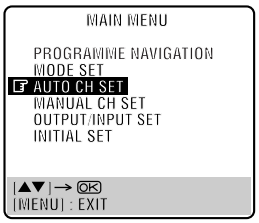
This recorder offers you the choice to view on-screen messages in 13 different languages. Though Auto Set Up selects the language automatically (☞ pg. 15), you can change the language setting manually as required.

1 Access the Main Menu screen.

Press **MENU**.

2 Access the Country Set screen.

Press △▽ to move the highlight bar (pointer) to "AUTO CH SET", then press **OK** or ▷.



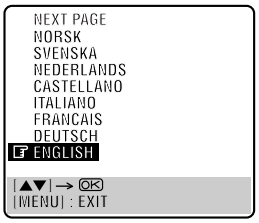
3 Select your country.

Press △▽ to move the highlight bar (pointer) to your country's name, then press **OK** or ▷.

4 Select the language.

Press △▽ to move the highlight bar (pointer) to the language of your choice.

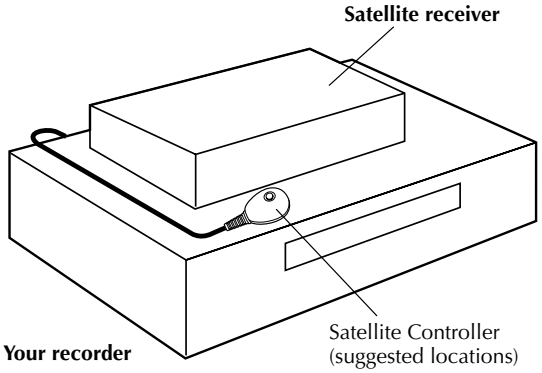
- You do not have to press **OK**; pressing **OK** enters AUTO SET/ T-V LINK screen.

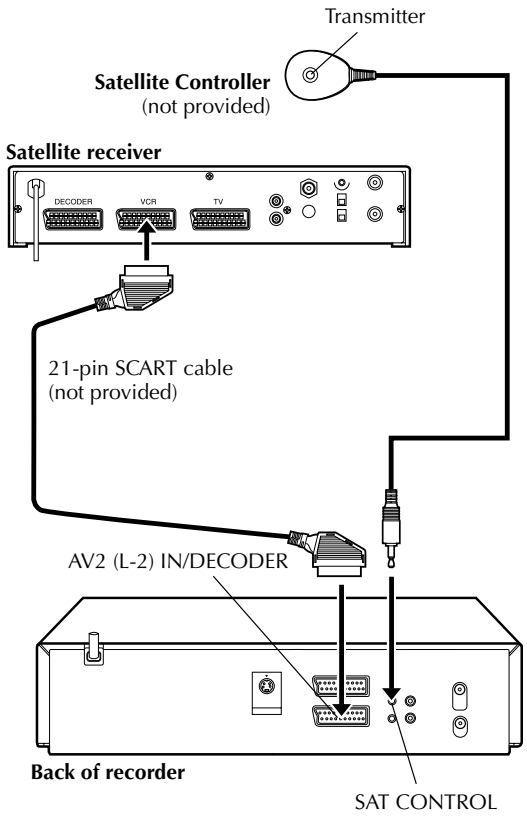


5 Return to the normal screen.

Press **MENU**.

Satellite Receiver Control Setting





The following procedure is required if you receive satellite channels through a satellite receiver. Approximately 20 seconds before the SHOWVIEW timer programming (☞ pg. 28) or Express timer programming (☞ pg. 30) starts, the recorder sets its input mode to "L-2" and automatically switches the satellite receiver's channels using an optional Satellite Controller.

Installing Satellite Controller

1 Situate the Satellite Controller.

Place the Satellite Controller so that the path between its transmitter and the satellite receiver's remote sensor is unobstructed.

2 Attach the Satellite Controller.

Fix securely using the adhesive strip attached on the back of the Satellite Controller.

3 Make connections.

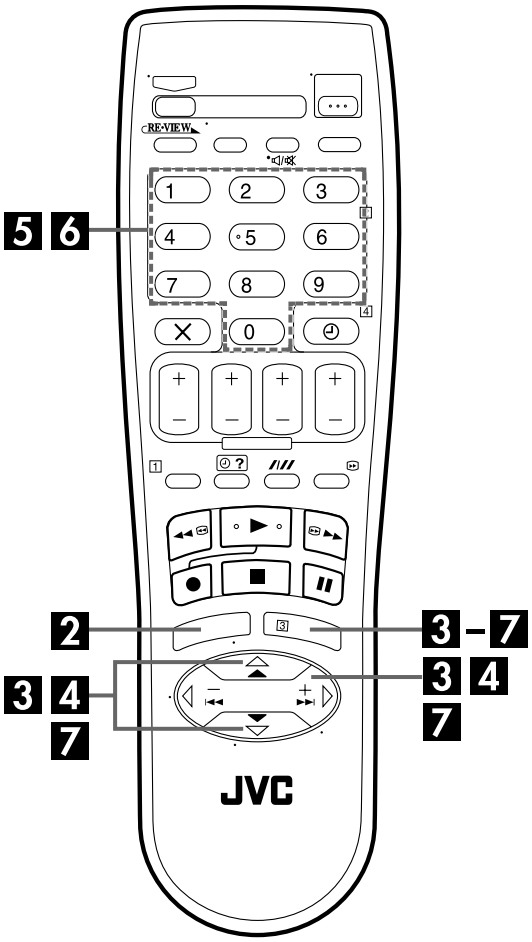
Be sure to connect the recorder's AV2 (L-2) IN/DECODER connector to the satellite receiver's 21-pin SCART connector.

NOTE:

When connecting your satellite receiver, refer to its instruction manual.

4 Connect the Satellite Controller to recorder.

Connect the Satellite Controller to the SAT CONTROL connector on the rear panel.



Setting satellite receiver's brand and channel

After installation, set the satellite receiver's brand and channel correctly; otherwise, the Satellite Controller cannot work correctly.

Turn on the TV and select the video channel (or AV mode).

1 Turn on the satellite receiver.

Turn on the satellite receiver's power.

2 Access the Main Menu screen on the recorder.

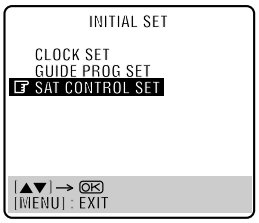
Press **MENU**.

3 Access the Initial Set screen.

Press △▽ to move the highlight bar (pointer) to "INITIAL SET", then press **OK** or ▷.

4 Access the Sat Control Set screen.

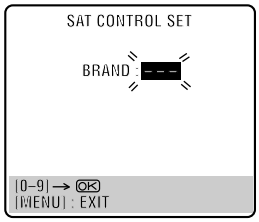
Press △▽ to move the highlight bar (pointer) to "SAT CONTROL SET", then press **OK** or ▷.



5 Enter the satellite receiver's brand.

Press the appropriate **number keys** to enter the brand code from the list on page 19, then press **OK**.

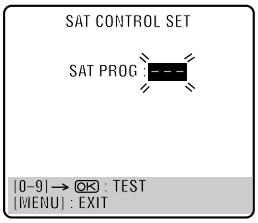
- If the brand code you entered is invalid, the code field will be reset. Enter the correct brand code again.
- If the recorder is in playback or recording mode, you cannot set the brand code.



6 Select the satellite receiver's channel for testing.

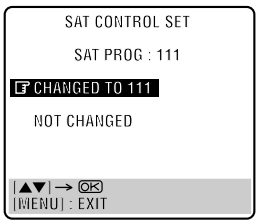
Press the appropriate **number keys** to enter one of the channel positions on the satellite receiver, then press **OK**.

- You can select the channel position between 1 to 999.
- After pressing **OK**, the recorder enters the Test mode.



7 Check the result of the test.

If the satellite receiver's channel number has been changed to the same one as you set in step 6 ...
Press △▽ to move the highlight bar (pointer) to "CHANGED TO ...", then press **OK** or ▷ to finish the Sat Control Set mode.



If the satellite receiver's channel number has not been changed correctly ...
Press △▽ to move the highlight bar (pointer) to "NOT CHANGED", then press **OK** or ▷. Then perform the procedure again from step **5**.

BRAND NAME	CODE
JVC	73
AMSTRAD	60, 61, 62, 63, 92
CANAL SATELLITE	81
CANAL +	81
D-BOX	85
ECHOSTAR (VIA DIGITAL)	82
FINLUX	68
FORCE	89
GALAXIS	88
GRUNDIG	64, 65, 102
HIRSCHMANN	64, 78, 99
HUMAX	88
ITT NOKIA	68
KATHREIN	70, 71, 96
LUXOR	68
MASCOM	93
MASPRO	70
NOKIA	87, 94
PACE	65, 67, 74, 86, 92
PANASONIC	74, 92
PHILIPS	66, 84, 101
RADIX	78
RFT	69
SABA	97
SAGEM	83, 90
SALORA	68
SAMSUNG	83
SIEMENS	64
SKYMASTER	69, 98
TECHNISAT	66, 100
THOMSON	97
TPS	83
TRIAX	91
WISI	64

NOTES:

- *The Satellite Controller may not work with all types of satellite receiver.*
- *For some satellite receivers, you need to set its channel input mode to 2-digit.*
- *If your satellite receiver has more than two channel modes, be sure to set to "All Channel Mode". For details, refer to the instruction manual of the satellite receiver.*
- *When selecting the satellite receiver's channel (☞ step **6**), signals from the remote control may interfere with signals transmitted from the Satellite Controller. In this case, move the remote control as close to the recorder's infrared beam receiving window as possible.*

T-V Link Functions

When you connect the recorder to your TV via a fully-wired 21-pin SCART cable (☞ pg. 10), the following functions are available. You can use these functions only with a TV offering T-V Link, etc.*
For details, refer to the instruction manual of your TV.

** Compatible with TVs offering T-V Link, EasyLink, Megalogic, SMARTLINK, Q-Link, DATA LOGIC or NexTView Link via fully-wired 21-pin SCART cable. The degree of compatibility and available functions may differ by system.*

NexTView Link

You can download the EPG (Electronic Programme Guide) information from your TV for timer-programming on the recorder.
For details, refer to the instruction manual of your TV.

TV Auto Power On

The TV will turn on and be set to its AV mode automatically whenever you play a tape.
For details, refer to the instruction manual of your TV.

VCR Auto Standby

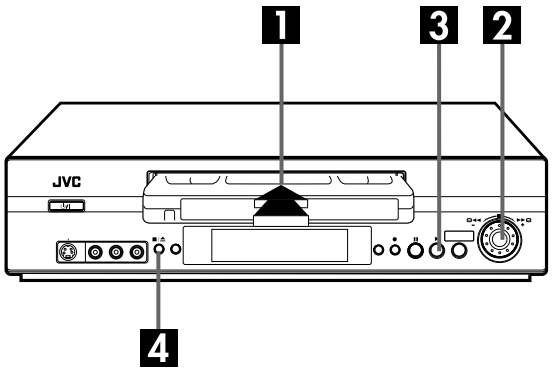
You can use your TV's remote control to turn off the recorder.
For details, refer to the instruction manual of your TV.

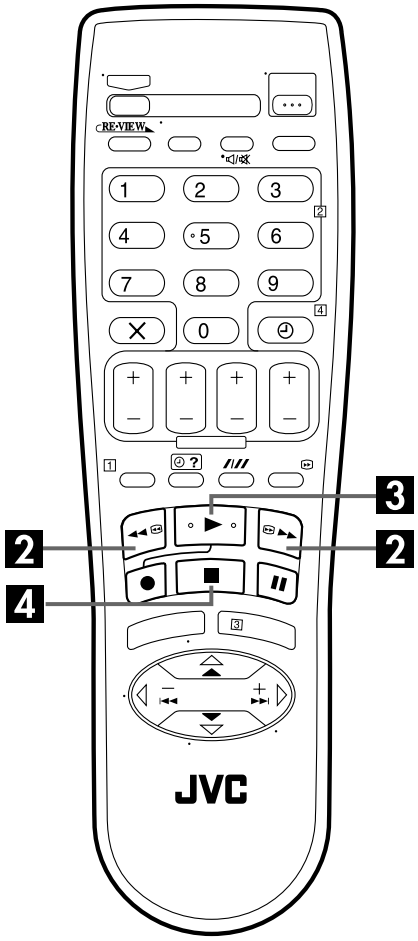
Direct Rec

You can easily start recording the programme that you are watching on your TV. When you use this function, set "DIRECT REC" to "ON" (☞ pg. 50).

Basic Playback

Turn on the TV and select the video channel (or AV mode).





1 Load a cassette.

Make sure the window side is up, the rear label side is facing you and the arrow on the front of the cassette is pointed toward the recorder.

- Do not apply too much pressure when inserting.
- If the record safety tab has been removed, playback begins automatically.
- If the record safety tab is intact, the recorder checks the tape information for Programme Navigation. For details, refer to "Navigation" (☞ pg. 36).

2 Find the programme start point.

If the tape is advanced past the start point, press ◄◄ or turn the **JOG** dial to the left. To go forward, press ►► or turn the **JOG** dial to the right.

3 Start playback.

Press ►. "bESt" appears blinking in the recorder's front display panel during automatic tracking. (☞ pg. 27)

4 Stop playback.

Press ■ on the remote control or ■/⏏ on the recorder's front panel. Then press ■/⏏ to remove the cassette.

Clean the video heads using a dry cleaning cassette — TCL-2 — when:

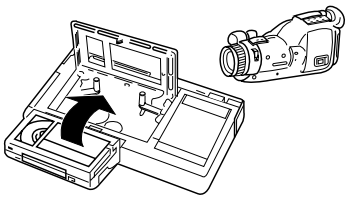
- Rough, poor picture appears while a tape is played back.
- The picture is unclear or no picture appears.
- "USE CLEANING CASSETTE" appears on the screen (only with "O.S.D." set to "ON" (☞ pg. 49)).

NOTE:

The heads get dirty in the following cases:

- in an environment prone to extreme temperature or humidity
- in a dusty environment
- flaw, dirt or mold on video tapes
- continuous usage for a long time

Usable cassettes



- Compact VHS camcorder recordings can be played on this video recorder. Simply place the recorded cassette into a VHS Cassette Adapter and it can be used just like any full-sized VHS cassette.
- This video recorder can record on regular VHS and Super VHS cassettes. While only VHS signals can be recorded on regular VHS cassettes*, both VHS and Super VHS signals can be recorded and played back using Super VHS cassettes.

* *By using the S-VHS ET function, it is possible to record and play back with S-VHS picture quality on VHS cassettes with this recorder.*

Playback Features

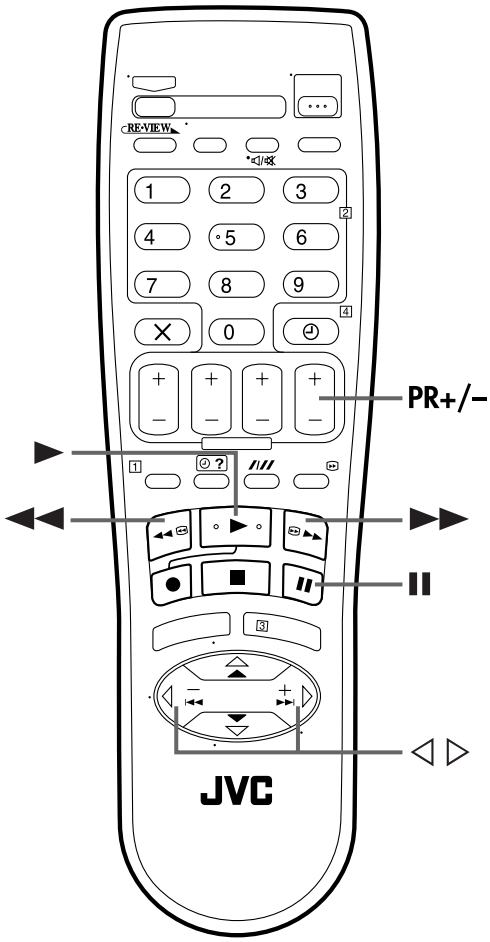
NOTES:

- *For speed search, refer to the table below.*
- *You can see smooth slow motion picture only during 1/2x slow motion playback.*
- *You can hear the normal audio track only during 1.5x speed search.*

Reverse ◄——— Forward

Reverse search	Reverse play	Reverse slow motion	Slow motion	Normal play	Forward search
–7, –5, –3	–1	–1/6, –1/18	1/18, 1/6, 1/2*	1	1.5*,2, 3, 5, 7

** PAL SP/LP only*



ATTENTION

- Picture may not appear during high-speed search with an LP/EP-recorded tape.
- Noise may appear or the picture may appear distorted with an EP-recorded tape during still, slow motion, frame-by-frame playback or variable speed search.
- In the high-speed search, still, slow motion or frame-by-frame playback mode, the picture will be distorted, and there will be a loss of colour.

Still Picture/Frame-By-Frame Playback

1 Pause during playback.

Push the **JOG** dial.
OR
Press **II**.

2 Activate frame-by-frame playback.

Turn the **JOG** dial to the right for forward frame-by-frame playback, or to the left for reverse frame-by-frame playback.
OR
Press **II**.
OR
Press ◁ or ▷.

To resume normal playback, press ► or push the **JOG** dial.

Slow Motion

During playback, turn the **JOG** dial one click to the left for forward slow motion. To play in reverse slow motion, continue to turn the **JOG** dial to the left after selecting all the forward direction slow motion modes.
OR
During still picture, press and hold **II** for 2 seconds, then release. Press **II** and release again to return to still picture.
OR
During still picture, press and hold ◁ or ▷. Release to return to still picture.

NOTE:

*During slow motion playback, some noise may appear on the TV screen. Press **PR +** or **–** on the remote control to eliminate the noises.*

High-Speed (Turbo) Search

During playback, turn the **JOG** dial quickly to the left or right.
OR
During playback or still, press ►► for forward high-speed search, or ◄◄ for reverse high-speed search.

NOTE:

For short searches, press and hold ►► or ◄◄ for over 2 seconds during playback or still picture. When released, normal playback resumes.

To resume normal playback, press ►.

Variable Speed Search

During playback, turn the **JOG** dial to the right for forward variable-speed search, or to the left for reverse variable-speed search.

OR

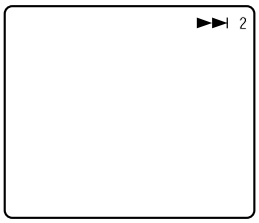
During playback, press ◁ or ▷.

- The more times you press, the faster the playback picture moves.
- To decrease speed, press the button for the opposite direction.

To resume normal playback, press ►.

Index Search

Your recorder automatically marks index codes at the beginning of each recording. This function gives you quick access to any one of 9 index codes in either direction.



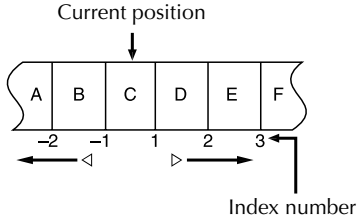
NOTE:

Before starting, make sure the recorder is in the Stop mode.

Activate Index Search.

Press ◁ or ▷ (I◄◄ or ►►I). "I◄◄ 1" or "►►I 1" is displayed on the TV screen and search begins in the corresponding direction.

- To access index codes 2 through 9, press ◁ or ▷ repeatedly until the correct index number is displayed.
  Example:
  To locate the beginning of B from the current position, press ◁ twice.
  To locate the beginning of D from the current position, press ▷ once.



- When the specified index code is located, playback begins automatically.

Skip Search

During playback, press **30 SEC** 1 to 4 times to skip over unwanted sections.
Each press initiates a 30-second period of fast-motion playback. Normal playback resumes automatically.

To resume normal playback during a Skip Search, press ►.

Instant ReView

Simply by pressing a single button, the recorder power comes on, rewinds, and begins playback of the last timer-recorded programme. If you have several programmes recorded, you can easily access any of them.

NOTE:

Before starting, make sure that the recorder is off and that the Timer mode is disengaged.

Activate Instant ReView.

Press **REVIEW**. The recorder power comes on and the recorder searches for the index code indicating the start of the last timer-recorded programme. Once it's found, playback begins automatically.

- The front display panel tells you how many programmes have been timer-recorded. If you have, for example, 3 programmes, the Instant REVIEW indicator (↩) and "3" blink. To watch the first of the 3 programmes, press **REVIEW** three times. The recorder searches and begins playback automatically. You can access a programme as far as 9 index codes away from the current tape position.
- The number of recorded programmes will not be displayed on the front display panel after Auto Satellite Programme Recording (☞ pg. 35).

Next Function Memory

The Next Function Memory "tells" the recorder what to do after rewinding. Before continuing, make sure the recorder is in the Stop mode.

a- For Automatic Start Of Playback
Press ◄◄, then press ► within 2 seconds.
b- For Automatic Power Off
Press ◄◄, then press ⏻/I within 2 seconds.
c- For Automatic Timer Standby
Press ◄◄, then press ◴ (**TIMER**) within 2 seconds.

NOTE:

The Automatic Power Off does not work if "AUTO TIMER" is set to "ON" (☞ 49) and if any timer programming has been made. If "AUTO TIMER" is set to "ON", the recorder directly goes into the Timer-Standby mode at the same time when the ⏻/I is pressed for the Automatic Power Off.

Repeat Playback

Your recorder can automatically play back the whole tape 100 times repeatedly.

1 Start playback.

Press ►.

2 Activate Repeat Playback.

Press ► and hold for over 5 seconds, then release.
- The Play indicator (▷) on the front display panel blinks slowly.
- After playing back a tape 100 times, the recorder stops automatically.

3 Stop Repeat Playback.

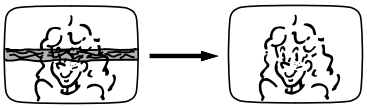
Press ■ at any time.
- Pressing ►, ◄◄, ►► or **II** also stops Repeat Playback.

NOTE:

Repeat playback is not possible with a cassette recorded in EP mode.

Manual Tracking

Your recorder is equipped with automatic tracking control. During playback, you can override this and adjust the tracking manually by pressing the **PR** buttons.



1 Override automatic tracking.

During playback, press **//** on the remote control.

2 Adjust the tracking manually.

Press **PR +** or **–** on the remote control.
- Press **//** again to return to automatic tracking.

NOTE:

When a new tape is inserted, the recorder enters the automatic tracking mode automatically.

Soundtrack Selection

Your recorder is capable of recording three soundtracks (HI-FI L, HI-FI R and NORM) and will play back the one you select.

During Playback

Pressing **AUDIO** changes the soundtrack as follows:

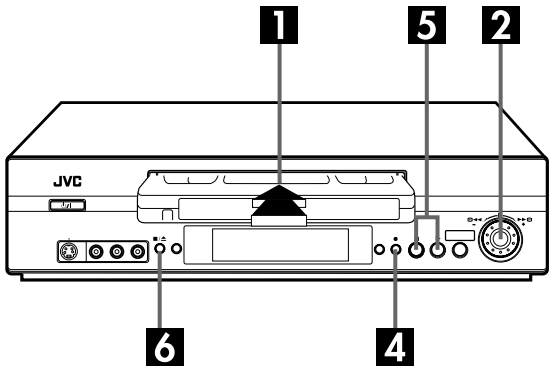
TRACK **On-Screen Display**	**USE**
HI FI L R	For Hi-Fi stereo tapes
HI FI L	For main audio of Bilingual tapes
HI FI R	For sub audio of Bilingual tapes
NORM	For audio-dubbed tapes
HI FI NORM	For audio-dubbed tapes

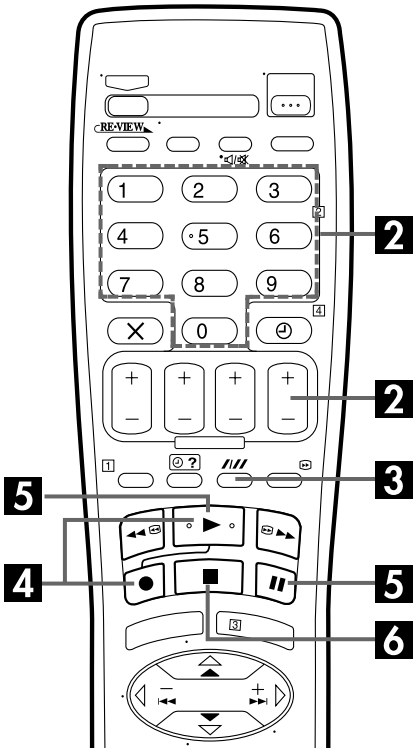
NOTES:

- *"HI FI L R" should normally be selected. In this mode, Hi-Fi stereo tapes are played back in stereo, and the normal audio track is played back automatically for tapes with only normal audio.*
- *For instructions on recording stereo and bilingual programmes, refer to page 26.*
- *"O.S.D." must be set to "ON" or the on-screen displays will not appear (☞ pg. 49).*

Basic Recording

Turn on the TV and select the video channel (or AV mode).





Recording Resume Function

If there is a power outage during recording, Instant Timer Recording (☞ pg. 25) or timer recording (☞ pg. 28, 30, 32), the recording will resume automatically when power is restored to the recorder unless the recorder's memory backup has expired.

NOTE:

If a power outage exceed the recorder's memory backup time, Recording Resume Function does not work.

1 Load a cassette.

Insert a cassette with the record safety tab intact.

- The recorder checks the tape information for Programme Navigation. For details, refer to "Navigation" (☞ pg. 36).

2 Choose a programme.

Press **PR +/–** or the **number keys**. Or push the **JOG** dial and turn it to the left or right to select the channel you wish to record.

3 Set the tape speed.

Press **SP/LP/EP** (▰/▰▰). The current setting appears on the front display panel or TV screen. Press **SP/LP/EP** (▰/▰▰) again to change the setting while the tape speed is displayed on the TV screen.

- In EP mode, the recording time is extended three times.
- If you record a programme in EP mode on this recorder, it is recommended to play back the EP-recorded tape on this recorder.
- It is not possible to select EP mode if "COLOUR SYSTEM" is set to "MESECAM". (☞ pg. 52)

4 Start recording.

Press and hold ● and press ► on the remote control, or press ● on the recorder.

- If "O.S.D." is set to "ON" (☞ pg. 49), "MARK" blinks on the screen while an index code is being marked.
- When "DIRECT REC" is set to "ON" (☞ 50), if you press any button just after pressing ● on the recorder (or ● and ► on the remote control), the recorder may not function properly.

B.E.S.T. takes place at the beginning of both the first SP and the first LP (or EP) recording after inserting the cassette. (☞ pg. 27)

If "DIRECT REC" is set to "ON", the programme that appears on the TV screen will be recorded (☞ pg. 50).

5 Pause/Resume recording.

Press ❚❚. Press ► to resume recording.

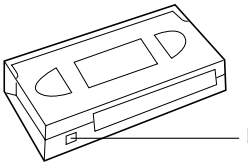
- You can select channel during the Record Pause mode.

6 Stop recording.

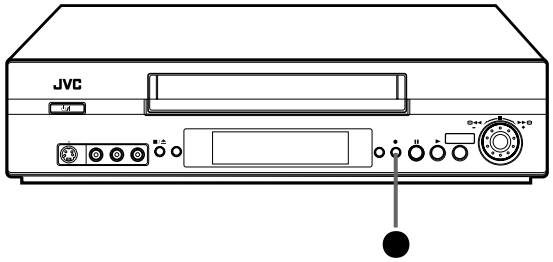
Press ■ on the remote control or ■/⏏ on the recorder. Then press ■/⏏ to remove the cassette.

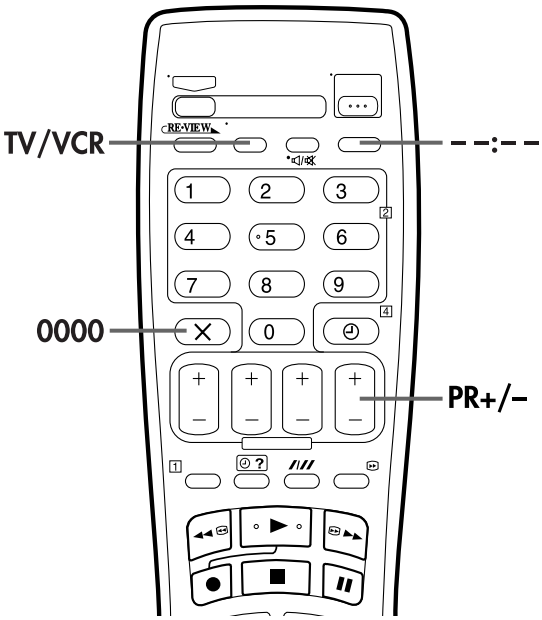
Accidental erasure prevention

To prevent accidental recording on a recorded cassette, remove its safety tab. To record on it later, cover the hole with adhesive tape.



Recording Features





Record One Programme While Watching Another

If your recorder is connected to the TV via the AV connection, press **TV/VCR**. The recorder's VCR indicator and the TV broadcast being recorded disappear. Once recording is in progress, all you need to do is to set the channel controls on the TV for the station you wish to view.

- The programme selected with the TV's channel controls appears on the TV screen, while the one selected with the recorder's **PR** buttons is recorded on the tape.
- If a decoder is connected to the recorder (☞ pg. 46), you can select a scrambled channel as well with the TV channel controls.

Instant Timer Recording (ITR)

This easy method lets you record for from 30 minutes to 6 hours (selectable in 30-min. increments), and shuts the recorder off after recording is finished.

1 Start recording.

Press ● on the recorder.

2 Engage the ITR mode.

Press ● again. "◯" blinks and "0:30" appears on the front display panel.

3 Set the recording duration.

If you want to record for more than 30 minutes, press ● to extend the time. Each press extends recording time by 30 minutes.

NOTE:

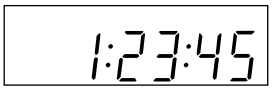
You can only perform ITR using the ● button on the recorder's front panel.

Elapsed Recording Time Indication

1 Set the counter display.

Press **– –:– –** until a counter reading appears on the front display panel.

- The front display panel shows the counter reading with ":" lit.



2 Reset the counter.

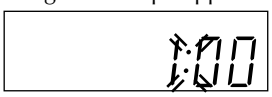
Press **0000** before starting recording or playback.

- The counter is reset to "0:00:00" and shows the exact elapsed time as the tape runs. You can check the exact time of a recording or playback.

Tape Remaining Time

Press **– –:– –** until the time remaining on the tape appears.

- The front display panel shows the tape remaining time with ":" blinking.
- By pressing the **– –:– –** button, you can change display to show the channel position*, clock time, counter reading or tape remaining time.



* *Channel position is not displayed during playback.*

NOTE:

Depending on the type of tape being used, the tape remaining time reading may not appear right away, or is not correct. "– –:– –" may sometimes appear, or the display may blink on occasion.

Super VHS ET (S-VHS ET) — Recording on VHS cassettes with S-VHS quality

You can record in SP mode on VHS cassettes with S-VHS picture quality. You can play back a tape recorded using the S-VHS ET function on most of S-VHS recorders and of VHS recorders equipped with SQPB (S-VHS QUASI PLAYBACK) function. (Notice some recorders are not compatible with the S-VHS ET function.)

- You can activate the S-VHS ET function only before you start recording on a VHS cassette.
- Before recording, make sure that "B.E.S.T." is set to "ON". (☞ pg. 49)

Engage the S-VHS ET mode.

Press **S-VHS ET** on the recorder. You can check the current setting ("S-VHS ET : ON" or "S-VHS ET : OFF"). If "S-VHS ET : OFF" appears on the TV screen, press **S-VHS ET** again in about 5 seconds to set it to "ON".

- The S-VHS indicator lights up on the front display panel.

NOTES:

- *You cannot activate the S-VHS ET function ...*
  ... while recording is in progress.
  ... while timer-recording or Instant Timer Recording (☞ pg. 25) is in progress.
  ... while B.E.S.T. (☞ pg. 27) is in progress.
- *The S-VHS ET function does not work ...*
  ... with S-VHS cassettes.
  ... with recordings in LP/EP mode.
- *To keep the highest quality recording and playback pictures over a long period of time, S-VHS recording on S-VHS cassettes is recommended.*
- *Use of high grade tapes is recommended for S-VHS ET recordings. On some tapes, picture quality will not improve even if the S-VHS ET function is used. Check the recording quality before you start important recordings.*
- *While playing back a tape recorded using the S-VHS ET function on some recorders, noise may appear. (If playback picture becomes blurred or interrupted, use a cleaning cassette.)*
- *In the high-speed search, still, slow-motion or frame-by-frame playback modes (☞ pg. 21), noise may appear. If these modes are performed frequently on a tape recorded using the S-VHS ET function, the tape may be damaged and the picture may be deteriorated.*

Receiving Stereo and Bilingual Programmes

Your recorder is equipped with a Sound-Multiplex decoder (A2) and a Digital stereo sound decoder (NICAM) making reception of stereo and bilingual broadcasts possible.
When the channel is changed, the type of broadcast being received will be displayed on the TV screen for a few seconds.

Type of Broadcast Being Received	On-screen Display
A2 Stereo	ST
A2 Bilingual	BIL.
Regular Monaural	(none)
NICAM Stereo	ST NICAM
NICAM Bilingual	BIL. NICAM
NICAM Monaural	NICAM

- To listen to a stereo programme, press **AUDIO** until "HIFI L R" appears on the TV screen.
- To listen to a bilingual programme, press **AUDIO** until "HIFI L" or "HIFI R" appears on the TV screen.
- To listen to the standard (Regular Monaural) audio while receiving a NICAM broadcast, press **AUDIO** until "NORM" appears on the TV screen.

NOTE:

"O.S.D." must be set to "ON" or the on-screen displays will not appear (☞ pg. 49).

To Record Stereo and Bilingual Programmes (A2)

Stereo programmes are automatically recorded in stereo on the Hi-Fi audio track (with the normal audio track recording mixed L and R channel sound).

- Bilingual programmes are automatically recorded in bilingual on the Hi-Fi audio track. The main soundtrack will be recorded on the normal audio track.

To Record NICAM Stereo and Bilingual Programmes

The NICAM audio programme will be recorded on the Hi-Fi audio track, and the standard audio programme will be recorded on the normal audio track.

NOTES:

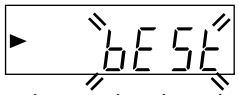
- *If the quality of stereo sound being received is poor, the broadcast will be received in monaural with better quality.*
- *Before playing back a programme recorded in stereo, or a bilingual programme, refer to "Soundtrack Selection" on page 23.*

B.E.S.T. Picture System

The B.E.S.T. (Biconditional Equalised Signal Tracking) system checks the condition of the tape in use during playback and recording, and compensates to provide the highest-possible playback and recording pictures. You can set "B.E.S.T." to "ON" or "OFF" to your preference (☞ pg. 49).

Playback

The recorder assesses the quality of the tape once you initiate playback.



- The recorder adjusts the playback picture quality based on the quality of the tape in use.
- B.E.S.T. is active during automatic tracking. "bESt" appears blinking on the recorder's front display panel.

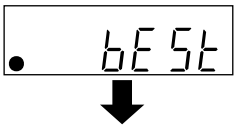
NOTES:

- *When watching a tape recorded with "B.E.S.T." set to "ON", it is recommended that you leave B.E.S.T. on during playback as well.*
- *When watching a rental tape or one recorded on another video recorder, or when using this recorder as the player for editing, set B.E.S.T. to your preference (☞ pg. 49).*
- *"bESt" only appears at the beginning of automatic tracking. Even though it doesn't appear after that, the B.E.S.T. function is operative.*

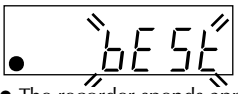
Recording

The recorder assesses the quality of the tape once you initiate recording.

DURING B.E.S.T.



B.E.S.T. COMPLETE



- The recorder spends approximately 7 seconds assessing the condition of the tape, then begins recording.

NOTES:

- *The B.E.S.T. system works for both SP and LP (or EP) modes only after a tape has been inserted and the Record mode is first initiated. It does not work during recording.*
- *The B.E.S.T. system does not work while Automatic Satellite Programme Recording is in progress (☞ pg. 35).*
- *In the case of timer recordings, the B.E.S.T. system works before recording is initiated.*
- *Once the cassette is ejected, the B.E.S.T. data is cancelled. The next time the cassette is used for recording, B.E.S.T. is re-performed.*
- *Pressing the recorder's ● button while "bESt" is displayed does not start Instant Timer Recording (☞ pg. 25).*

ATTENTION

Since the B.E.S.T. system works before recording actually starts, there is a delay of approximately 7 seconds after ● and ► on the remote control are pressed, or ● on the recorder is pressed. To make sure you record the desired scene or programme in its entirety, first perform the following steps:

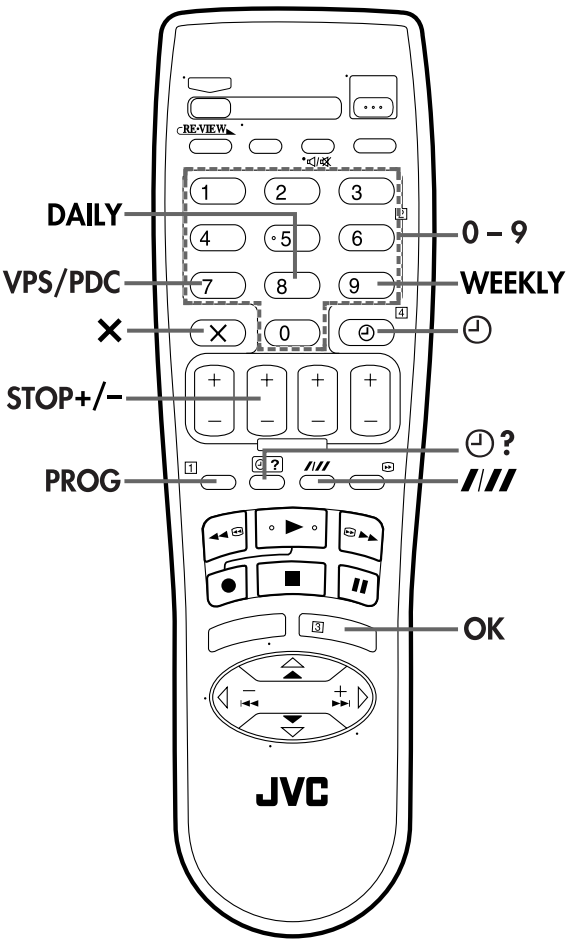
1 Press and hold ❚❚ and press ● to engage the Record Pause mode.
- The recorder then automatically checks the condition of the tape and, after approximately 7 seconds, re-enters Record Pause mode.

2 Press ► to start recording.

If you want to bypass the B.E.S.T. system and begin recording immediately, set "B.E.S.T." to "OFF" (☞ pg. 49).

SHOWVIEW® Timer Programming

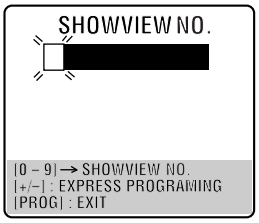
Before performing the SHOWVIEW Timer Programming:
- Make sure that the recorder's built-in clock is set properly.
- Insert a cassette with the safety tab in place. The recorder will come on automatically.
- Turn on the TV and select the video channel (or AV mode).



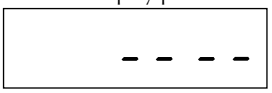
With the SHOWVIEW system, timer programming is greatly simplified because each TV programme has a corresponding code number which your recorder is able to recognize.

1 Access the SHOWVIEW screen.

Press **PROG**.

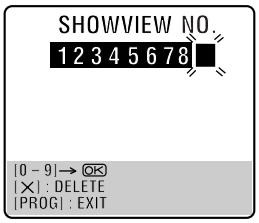


The front display panel looks like this:

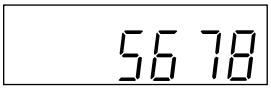


2 Enter the SHOWVIEW number.

Press the **number keys** to enter the SHOWVIEW number of a programme you wish to record.
- If you make a mistake, press ✕ and input the correct number.

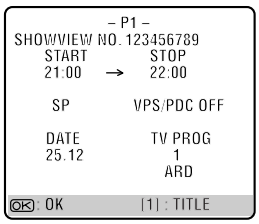


The SHOWVIEW number you enter appears on the front display panel with only a 4-digit number:

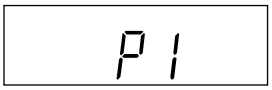


3 Access the SHOWVIEW Program screen.

Press **OK** and the SHOWVIEW Program screen appears (if you're just starting out, "P1" appears).



The front display panel shows the programme number. Pressing ◴ **?** changes the display to the programme start time, the stop time, the date, the tape speed then the channel position.



IMPORTANT
Make sure the channel position number you wish to record is displayed; if not, see "SHOWVIEW® System Setup" on page 53 and set the Guide Program number correctly.

- If the number you entered is invalid, "ERROR" appears on the TV screen and "Err" appears on the front display panel. Press ✕ and input a valid SHOWVIEW number.
- If the "GUIDE PROG SET" screen appears, see "ATTENTION" on page 29.

4 Set the tape speed.

Press **SP/LP/EP** (▰/▰▰).

- It is not possible to select EP mode if "COLOUR SYSTEM" is set to "MESECAM". (☞ pg. 52)

5 Set the VPS/PDC mode.

Press **VPS/PDC** (**number key "7"**) to select "ON" or "OFF".

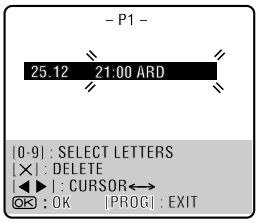
- If "VPS/PDC ON" is displayed on the TV screen, VPS/PDC is set to ON.
- If "VPS/PDC OFF" is displayed on the TV screen, VPS/PDC is set to OFF.

☞ "VPS/PDC Recording" on page 31.

6 Access the Title Edit screen.

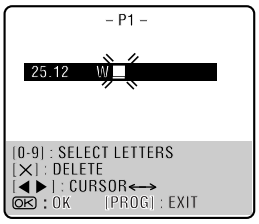
Press the **number key "1"**. The Title Edit screen appears.

- You can access the Title Edit screen only when "PROG. NAVIGATION" is set to "ON". (☞ pg. 50)



7 Enter the programme title.

Press the **number keys** and ▷ to enter characters, then press **OK**. For details, refer to "Entering Character" on page 39.



8 Return to the normal screen.

Press **PROG** or **OK**. "PROGRAM COMPLETED" appears on the TV screen for about 5 seconds, then the normal screen appears. If "PROGRAM OVERLAPPED" appears on the TV screen and "Err" on the front display panel, see page 34.

- Repeat steps **1** – **8** for each additional programme.

9 Engage the recorder's timer mode.

Press ⏲ (**TIMER**). The recorder turns off automatically and "⏲" appears on the front display panel.

- To disengage the timer mode, press ⏲ (**TIMER**) again.

NOTES:

- *To Change The Stop Time . . .*
  *. . . press **STOP +/–** after pressing **OK** in step **3**. You can compensate for anticipated programme schedule delays.*
- *To Timer-Record Weekly Or Daily Serials . . .*
  *. . . after pressing **OK** in step **3**, press **WEEKLY** (**number key** "**9**") for weekly serials or **DAILY** (**number key** "**8**") for daily serials (Monday — Friday). Either "WEEKLY" or "DAILY" appears on the TV screen. Pressing the button again makes the corresponding indication disappear.*
- *You can programme this recorder to timer-record as many as 8 programmes. If you try to programme the recorder to record a ninth, "PROGRAM FULL" appears on the TV screen and "FULL" appears on the front display panel. To record the extra programme, you must first cancel any unnecessary programmes (☞ pg. 33).*
- *It is not possible to timer-record a satellite broadcast received on the channel position "0" by the satellite receiver.*

Satellite Receiver Users

To timer-record a satellite broadcast using the SHOWVIEW system:

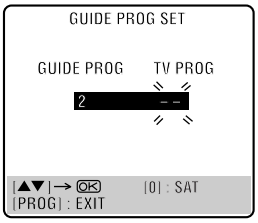
1. Perform "Satellite Receiver Control Setting" on page 17.
2. Perform steps **1** – **9**. In step **5**, you cannot set "VPS/PDC" to "ON".
3. Leave the satellite receiver's power on.

ATTENTION

Guide Program Number Set

"GUIDE PROG SET" appears after performing step **3** if the Guide Program number for the SHOWVIEW number you entered has not been set.

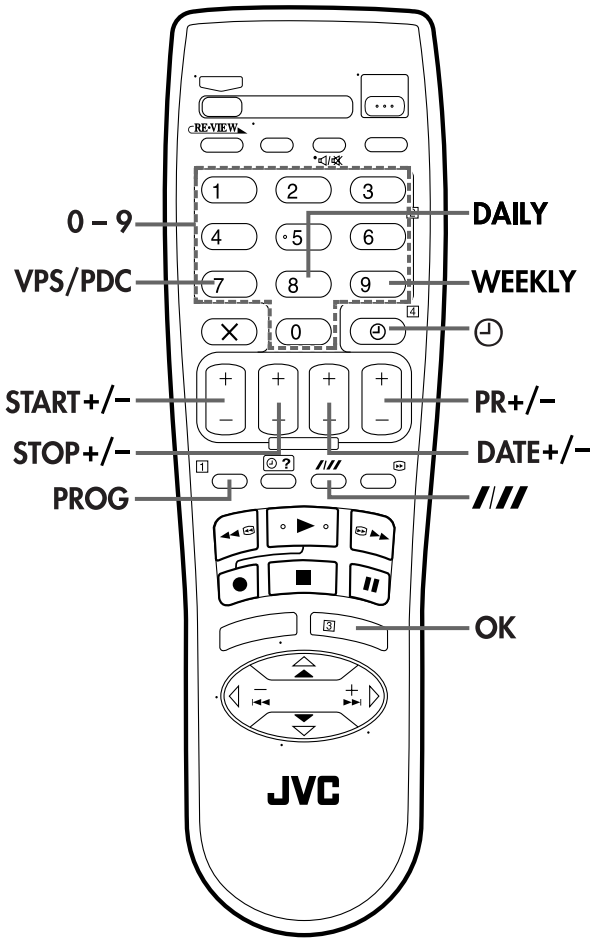
If you want to set the Guide Program number for the satellite broadcast station, press the **number key** "**0**" to change "TV PROG" to "SAT". Press △▽ to input the channel position number on which your recorder or satellite receiver receives that station, then press **OK** or ▷ to set the Guide Program number. The SHOWVIEW Program screen appears.



(Example)
To timer-record a ZDF programme with the SHOWVIEW system.
** If your recorder receives ZDF on the channel position 2, press **OK** or ▷ after entering "2".*

Express Timer Programming

Before performing Express Timer Programming:
- Make sure that the recorder's built-in clock is set properly.
- Insert a cassette with the safety tab in place. The recorder will come on automatically.
- Turn on the TV and select the video channel (or AV mode).



If you do not know the SHOWVIEW number for the programme you wish to record, use the following procedure to set your recorder to timer-record the programme.

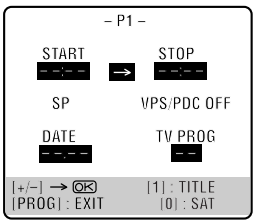
Example: To timer-record the programme from 21:00 to 22:00 on 25th December, on channel 1.

1 Access the SHOWVIEW screen.

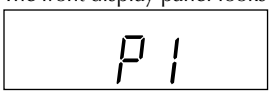
Press **PROG**.

2 Access the Programme screen.

Press **START+/–**. (If you're just starting out, "P1" appears.)

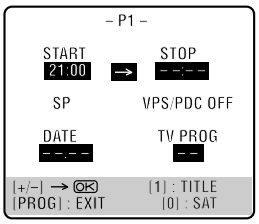


The front display panel looks like this:

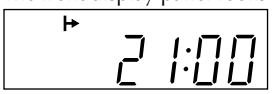


3 Enter the programme start time.

Press **START+/–** to enter the time you want recording to start.
- Press and hold **START+/–** to move in 30-minute increments, or press and release repeatedly to move 1 minute at a time.



The front display panel looks like this:



4 Enter the programme stop time.

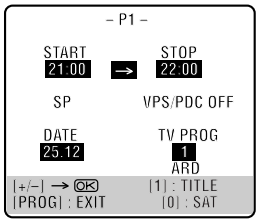
Press **STOP+/–** to enter the time you want recording to stop.
- Press and hold **STOP+/–** to move in 30-minute increments, or press and release repeatedly to move 1 minute at a time.

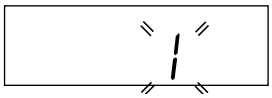
5 Enter the programme date.

Press **DATE+/–**.
- The current date appears on the TV screen. The date you enter appears in its place.

6 Enter the channel position.

Press **PR+/–**.





7 Set the tape speed.

Press **SP/LP/EP** (▰/▰▰).

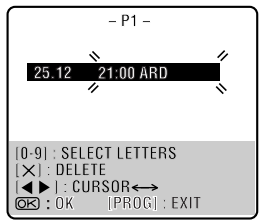
- It is not possible to select EP mode if "COLOUR SYSTEM" is set to "MESECAM". (☞ pg. 52)

8 Set the VPS/PDC mode.

Press **VPS/PDC** (**number key "7"**) to select "ON" or "OFF".
- If "VPS/PDC ON" is displayed on the TV screen, VPS/PDC is set to ON.
- If "VPS/PDC OFF" is displayed on the TV screen, VPS/PDC is set to OFF.
  ☞ "VPS/PDC Recording" in the right column

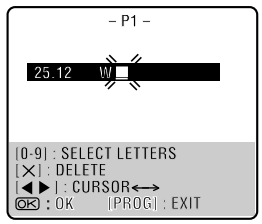
9 Access the Title Edit screen.

Press the **number key "1"**.
The Title Edit screen appears.
- You can access the Title Edit screen only when "PROG. NAVIGATION" is set to "ON". (☞ pg. 50)



10 Enter the programme title.

Press the **number keys** and ▷ to enter characters, then press **OK**. For details, refer to "Entering Character" on page 39.



11 Return to the normal screen.

Press **PROG** or **OK**. "PROGRAM COMPLETED" appears on the TV screen for about 5 seconds, then the normal screen appears. If "PROGRAM OVERLAPPED" appears on the TV screen and "Err" on the front display panel, see page 34.
- Repeat steps **1** – **11** for each additional programme.

12 Engage the recorder's timer mode.

Press ◴ (**TIMER**). The recorder turns off automatically and "◴" appears on the front display panel.
- To disengage the timer mode, press ◴ (**TIMER**) again.

To Timer-Record Weekly Or Daily Serials . . .
. . . anytime during steps **2** through **8**, press **WEEKLY** (**number key** "**9**") for weekly serials or **DAILY** (**number key** "**8**") for daily serials (Monday – Friday). Either "WEEKLY" or "DAILY" appears on the TV screen. Pressing the button again makes the corresponding indication disappear.

NOTES:

- *You can programme this recorder to timer-record as many as 8 programmes. If you try to programme the recorder to record a ninth, "PROGRAM FULL" appears on the TV screen and "FULL" appears on the front display panel. To record the extra programme, you must first cancel any unnecessary programmes (☞ pg. 33).*
- *It is not possible to timer-record a satellite broadcast received on the channel position "0" by the satellite receiver.*

Satellite Receiver Users
To timer-record a satellite broadcast using Express Timer Programming:
1. Perform "Satellite Receiver Control Setting" on page 17.
2. Perform steps **1** – **12**. In step **6**, press the **number key** "**0**" to change "TV PROG" to "SAT". Then press **PR+/–** to enter the channel position for the satellite broadcast. In step **8**, you cannot set "VPS/PDC" to "ON".
3. Leave the satellite receiver's power on.

VPS/PDC Recording

Now available from some TV stations, PDC (Programme Delivery Control) and VPS (Video Programme System) are service designed to assure safe, accurate timer recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over the advertised times you may have preset into the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed.

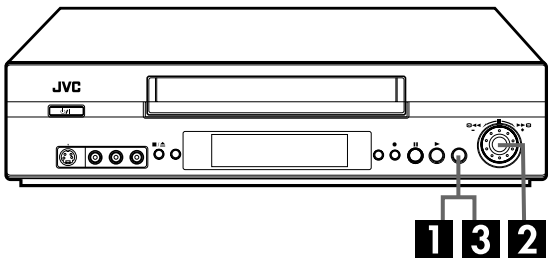
NOTES:

- *When you use Express Timer Programming, set the start time (VPS or PDC time) exactly as advertised in the TV listing. A different time than advertised will result in no recording.*
- *VPS/PDC recording is also possible when a satellite receiver or a cable system is connected to AV2 (L-2) IN/ DECODER connector on your recorder.*
- *VPS/PDC recording is also possible via the AV1 (L-1) IN/ OUT connector.*

How to check if the station being received transmits a VPS/PDC signal
1. Press – –:– – until the channel position appears on the front display panel.
2. Hold down **START+** for about 5 seconds.
   "VPS/PDC" appears blinking on the TV screen.
   If a VPS/PDC signal is detected from the station, "VPS/PDC" will stop blinking.
   If no VPS/PDC signal is detected from the station, "VPS/PDC" will blink at a slower rate.
3. Press – –:– – or **START+** again to return to normal display.

24 Hour Express Timer Programming

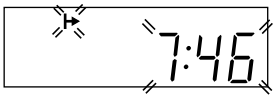
Before performing the 24 Hour Express Timer Programming:
- Make sure that the recorder's built-in clock is set properly.
- Insert a cassette with the safety tab in place. The recorder will come on automatically.



You can programme a timer recording that starts within 24 hours using the JOG dial on the recorder.

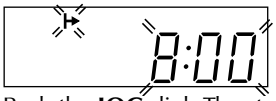
1 Enter the programme mode.

Press **24H EXPRESS** ◴ on the recorder. The start time indicator (▶) starts blinking on the front display panel.

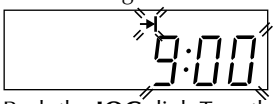


2 Set the programme start/stop time and channel.

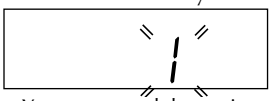
Turn the **JOG** dial to the left or right to set the time you want recording to start.
- One click stop of the JOG dial changes the time in 5-minute intervals.



Push the **JOG** dial. The stop time indicator (▶|) starts blinking on the front display panel. Turn the **JOG** dial to the left or right to set the time you want recording to stop.



Push the **JOG** dial. Turn the **JOG** dial to the left or right to select the channel you wish to record.



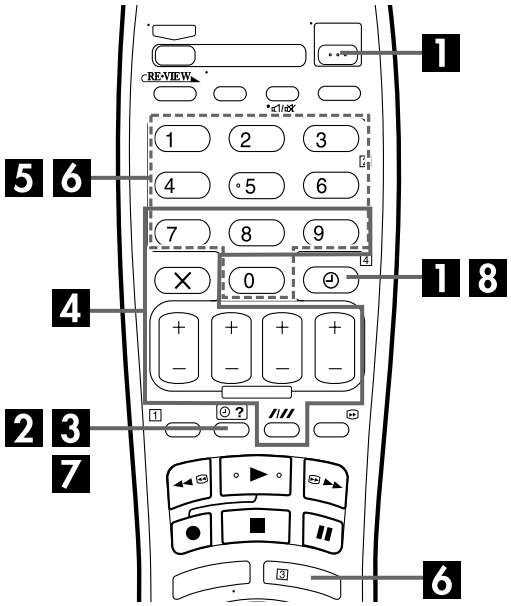
- You can cancel the setting at any time by pressing and holding the **JOG** dial for more than 3 seconds or pressing ✕ on the remote control. Repeat the step **2**.
- To set the tape speed, press **SP/LP/EP** (**/**//). The current setting for the tape speed appears on the display panel for about 5 seconds. Press **SP/LP/EP** (**/**//) again to change the setting while tape speed is displayed.

3 Engage the recorder's timer mode.

Press **24H EXPRESS** ◴. The recorder turns off automatically and "◴" appears on the front display panel.
- To disengage the timer mode, press ◴ (**TIMER**) or **24H EXPRESS** ◴ again.

NOTES:

- *You can programme this recorder to timer-record as many as 8 programmes. If you try to programme the recorder to record a ninth, "FULL" appears on the front display panel. To record the extra programme, you must first cancel any unnecessary programmes (☞ pg. 33).*
- *If "Err" appears on the front display panel, repeat the above steps again.*
- *When a menu screen is shown, you cannot use 24 Hour Express Timer Programming function. Press **MENU** to return to normal screen, and try again.*
- *You can use 24 Hour Express Timer Programming function also when the recorder is turned off.*
- *For 24 Hour Express Timer Programming function, the programme overlap warning display does not appear even if some programmes overlap each other. The programme with the lower programme number will be recorded and the other one will not be recorded correctly.*



Check, cancel and change programmes

1 Disengage the timer mode.

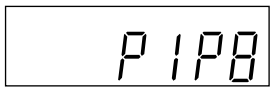
Press ◴ (**TIMER**), then press ⏻/I.

2 Access the Programme Check screen/display.

Press ◴ **?**.

	START	STOP	CH	DATE
1	8:00	10:00	3	24.12
2	10:00	10:45	2	25.12
3	11:30	13:00	1	25.12
4				
5				
6				
7				
8				

|◴?| : NEXT



3 Access the Programme screen/display.

Press ◴ **?** again to check more information. Each time you press ◴ **?**, the next programme's information appears.

– P1 –

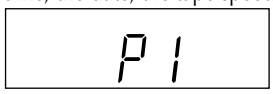
START 8:00 → STOP 10:00

SP VPS/PDC OFF

DATE 24.12 TV PROG 3 WDR

|1| : TITLE
|◴?| : NEXT

The front display panel shows the programme number. Pressing **OK** changes the display to the programme start time, the stop time, the date, the tape speed then the channel position.



To cancel or change a programme...

4 Cancel or change a programme.

Press ✕ to cancel a programme. To change programme settings, press the appropriate button: **START+/–**, **STOP+/–**, **DATE+/–**, **PR+/–**, **VPS/PDC** (**number key "7"**), **DAILY** (**number key "8"**), **WEEKLY** (**number key "9"**) and/or **SP/LP/EP** (▮/▮▮).

- You can change "TV PROG" to "SAT" for the channel position by pressing the **number key** "**0**".
- If you do not want to edit the programme title, skip steps **5** and **6**.

5 Access the Title Edit screen.

Press the **number key "1"**. The Title Edit screen appears.

- You can access the title edit screen only when "PROG. NAVIGATION" is set to "ON". (☞ pg. 50)

– P1 –

24.12 8:00 WDR

|0-9| : SELECT LETTERS
|✕| : DELETE
|◀ ▶| : CURSOR←→
|OK| : OK |◴?| : EXIT

6 Enter the programme title.

Press the **number keys** and ▷ to enter characters, then press **OK**. For details, refer to "Entering Character" on page 39.

– P1 –

24.12 W

|0-9| : SELECT LETTERS
|✕| : DELETE
|◀ ▶| : CURSOR←→
|OK| : OK |◴?| : EXIT

7 Return to the normal screen/display.

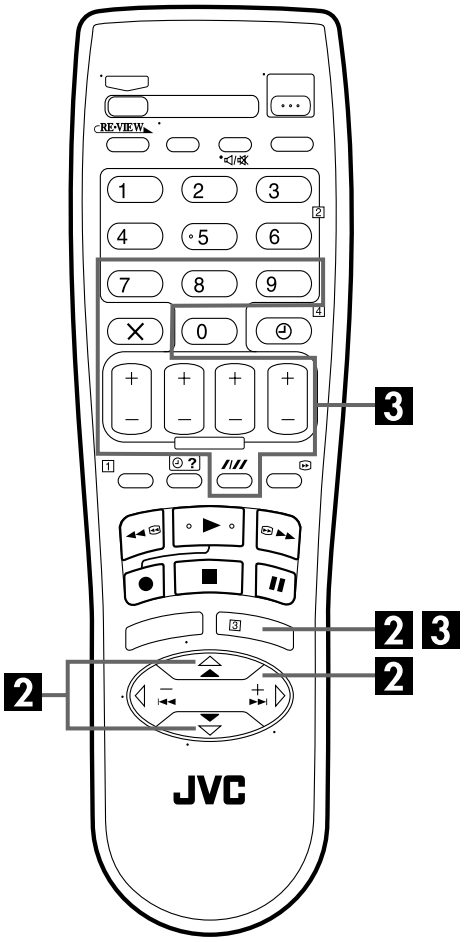
Press ◴ **?** as many times as necessary. If there are still some programmes remaining, go on to step **8**.

8 Return to the timer mode.

Press ◴ (**TIMER**).

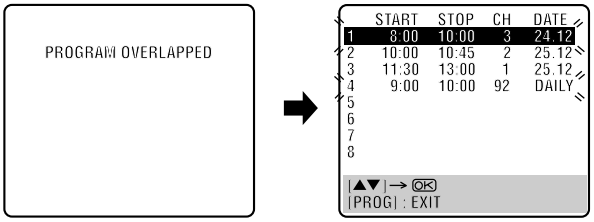
NOTE:

You can also check the programmes on the front display panel even if the recorder's power is off (unless the recorder is in the Power Save mode ☞ pg. 51) or the recorder is in the Timer mode; however, it is not possible to cancel or change the programmes.



When programmes overlap each other

If "PROGRAM OVERLAPPED" appears, you have another programme overlapping the programme you have just made. The Programme Check screen appears and conflicting programmes will start blinking.



Example: Programme 1 (you have just made) and Programme 4 overlap each other.

1 Confirm the overlapping programmes.

Overlapping programmes blink on the TV screen.

2 Select the programme to modify.

Press △▽, then press **OK** or ▷.
- You can only select one of the overlapping programmes.

NOTE:

*If you do not mind this overlap, press **PROG** to finish the timer programme setting. The programme with the lower programme number will be recorded and the other one will not be recorded correctly. If no changes are made for approximately 1 minute, the recorder will return to the normal screen.*

3 Cancel or change programme setting.

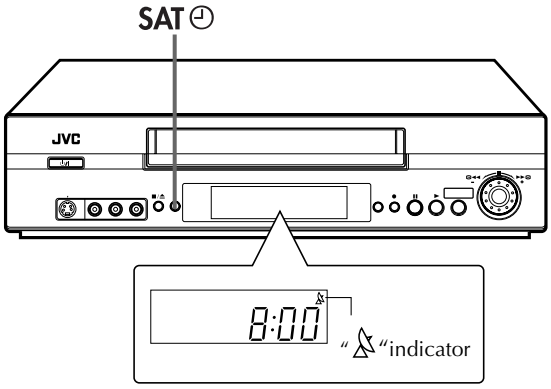
To cancel a programme, press ✕ when the Programme screen you do not want is shown. "PROGRAM COMPLETED" appears on the TV screen for about 5 seconds, then the normal screen appears.
To change a programme, press the appropriate button: **START+/–**, **STOP+/–**, **DATE+/–**, **PR+/–**, **VPS/PDC** (**number key "7"**), **DAILY** (**number key "8"**), **WEEKLY** (**number key "9"**) and/or **SP/LP/EP** (**///**) when the Programme screen on which you want to make changes is shown, then press **OK**. "PROGRAM COMPLETED" appears on the TV screen for about 5 seconds, then the normal screen appears.

NOTE:

If the overlap is not yet solved, or another overlap occurs with the timer programme setting after making the last correction on a programme, the conflicting programmes will be shown on the Programme Check screen again. Repeat the above steps again until the overlap is solved.

Automatic Satellite Programme Recording

This function allows you to automatically record a satellite programme which is timer-programmed on your external satellite receiver. Connect a satellite receiver to the recorder's AV2 (L-2) IN/DECODER connector and programme the timer on the satellite receiver. The recorder starts or stops recording by the signals input from the satellite receiver. After recording, the recorder's power shuts off automatically.



ATTENTION

- *Be sure not to turn on the satellite receiver before the programme is executed; otherwise, the recorder will start recording when the satellite receiver's power is turned on.*
- *If you have connected another appliance other than a satellite receiver to the AV2 (L-2) IN/DECODER connector, be sure not to engage the Automatic Satellite Programme Recording mode; otherwise, the recorder will start recording when the connected appliance's power is turned on.*
- *Automatic Satellite Programme Recording and timer-recording cannot be done at the same time.*

Before performing the following steps:

- Make sure the satellite receiver is connected to the recorder's AV2 (L-2) IN/DECODER connector. (☞ pg. 44, 45)
- Programme the timer on the satellite receiver.
- Insert a cassette with the safety tab in place.

1 Select the L-2 SELECT mode.

Set "L-2 SELECT" to "A/V" or "SAT" (☞ pg. 43).

- When you select "SAT", refer to "IMPORTANT" on page 44.

2 Set the tape speed.

Press **SP/LP/EP** (▮/▮▮▮).

- It is not possible to select EP mode if "COLOUR SYSTEM" is set to "MESECAM". (☞ pg. 52)

3 Engage the Automatic Satellite Programme Recording mode.

Press and hold **SAT** for about 2 seconds. The " " indicator lights up and the recorder turns off automatically.

NOTES:

- *To disengage the Automatic Satellite Programme Recording mode, press **SAT**. The " " indicator goes off.*
- *If the recorder's power is off, it is not possible to engage the Automatic Satellite Programme Recording mode.*
- *In step **3**, if the " " indicator does not light but instead blinks quickly even though your satellite receiver's power is off, Automatic Satellite Programme Recording will not work properly with that satellite receiver*. If this is the case, perform "Express Timer Programming" (☞ pg. 30) to timer-record a satellite programme.*
  ** Some satellite receivers output signals even if the power is off. Automatic Satellite Programme Recording is not possible with those satellite receivers.*
- *The " " indicator blinks while Automatic Satellite Programme Recording is in progress.*
- *For timer programming of the satellite receiver, refer to the instruction manual of the satellite receiver.*
- *Automatic Satellite Programme Recording is not possible if your satellite receiver does not have a timer.*
- *Pressing the recorder's ⏻/I button while Automatic Satellite Programme Recording is in progress turns off the recorder's power and disengages the Automatic Satellite Programme Recording mode.*
- *If there are more than one satellite programmes you wish to record with Automatic Satellite Programme Recording, it is not possible to set different tape speeds for each programme.*
- *Depending on the type of satellite receiver, the recorder may not record a slight portion of the beginning of the programme or may record slightly longer than the actual length of the programme.*
- *If you engage the Automatic Satellite Programme Recording mode when the satellite receiver's power is on, the recorder will not start Automatic Satellite Programme Recording even though the " " indicator blinks. When the satellite receiver shuts off once and is turned back on again, the recorder starts recording.*
- *You can also record a programme from your cable system in the same way if the system has a timer.*
- *The B.E.S.T. system (☞ pg. 27) does not work while Automatic Satellite Programme Recording is in progress.*
- *Just Clock (☞ pg. 60) does not work when the Automatic Satellite Programme Recording mode is engaged.*
- *When the Automatic Satellite Programme Recording mode is engaged, or the recorder's power is turned off after Automatic Satellite Programme Recording is finished, the recorder will not enter the Timer mode even though "AUTO TIMER" is set to "ON" (☞ pg. 49).*

Navigation

When you record a TV programme with this recorder, the recorder automatically stores in its memory the recording date, start time and station name. You can store these information for up to 8 programmes on one cassette. At maximum, information for 10 tapes can be stored. You can also enter the programme title when performing "SHOWVIEW® Timer Programming" (☞ pg. 28) or "Express Timer Programming" (☞ pg. 30). It is possible to store these information only when "PROG. NAVIGATION" is set to "ON" (default setting) (☞ pg. 50).

When inserting a cassette with the record safety tab intact ...

CHECKING TAPE DATA
REMAIN [3]

The recorder checks the tape information for the Programme Navigation.
If the recorder can store the information for 3 or less tapes, "REMAIN[_]" also appears on the TV screen.

CHECKING TAPE DATA
MEMORY FULL

If the recorder has already stored the information for 10 tapes, "MEMORY FULL" appears.
If you perform new recording, the oldest tape information will be deleted from the recorder's memory.

NO TAPE DATA DETECTED

If the recorder cannot detect the tape information, "NO TAPE DATA DETECTED" appears.

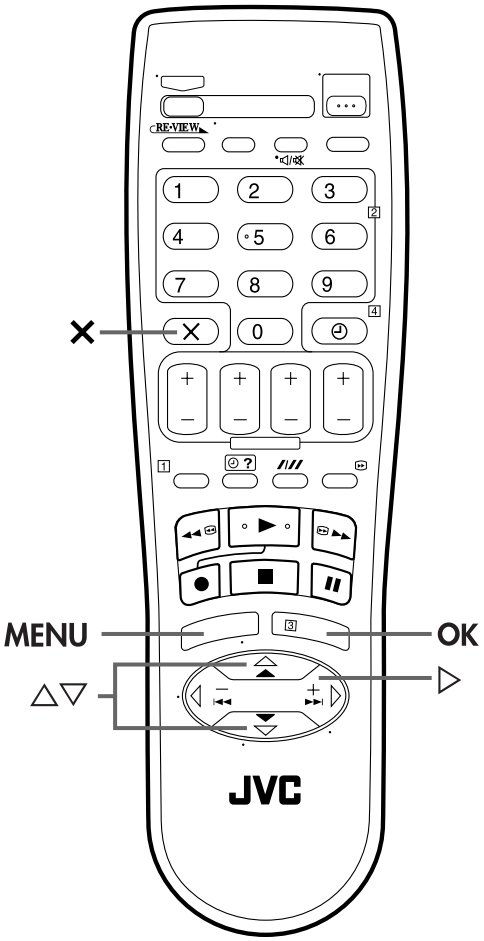
NOTE:

If you press any button while "CHECKING TAPE DATA" appears on the TV screen, the operation is canceled.

When inserting a cassette whose record safety tab has been removed ...

Playback begins automatically.
You can use Navigation Playback (☞ pg. 37), but you cannot edit programme title or delete tape data (☞ pg. 38, 39).

Turn on the TV and select the video channel (or AV mode).



Navigation Playback

This function is useful when you wish to quickly find out what programmes you have recorded on a tape with this recorder. This function allows you to select a programme to watch, and then automatically searches for the start of the programme.

1 Load a recorded cassette.

Insert a cassette recorded on this recorder.

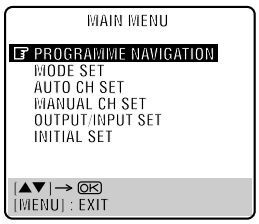
2 Access the Main Menu screen.

Press **MENU**.

3 Access the Programme Navigation screen.

Press △▽ to move the highlight bar (pointer) to "PROGRAMME NAVIGATION", then press **OK** or ▷.

- If "NO TAPE DATA DETECTED" appears on the TV screen, you cannot use the Navigation Playback function.



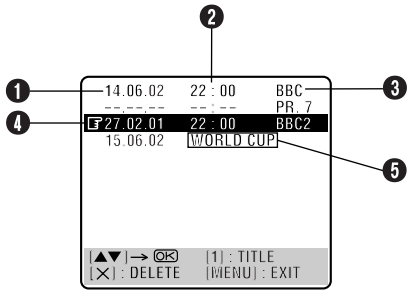
4 Select a programme.

Press △▽ to move the highlight bar (pointer) to the programme you want to watch.

5 Start playback.

Press **OK**. "SEARCHING" appears on the TV screen. Playback begins automatically after the selected programme is located.

Programme Navigation Screen



❶ Recording date
❷ Recording start time*
❸ Station name*

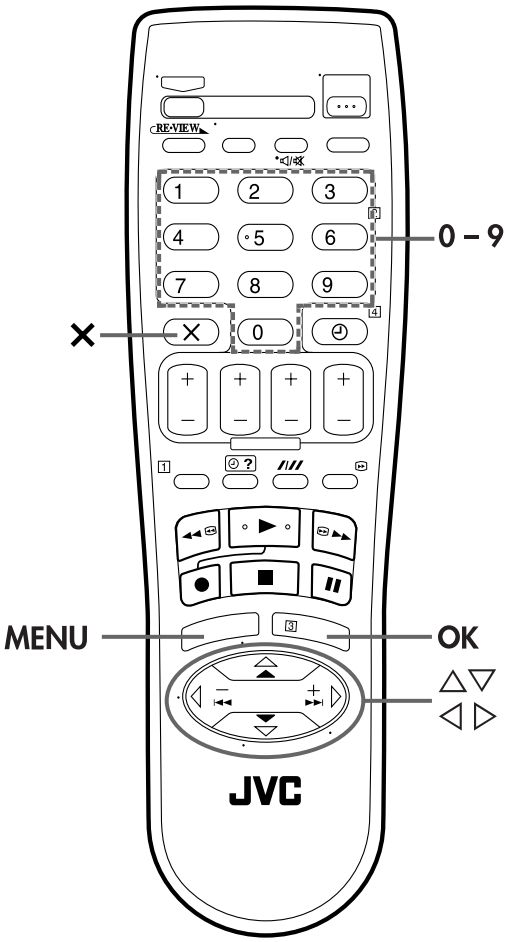
** After entering the programme title (☞ pg. 38), programme title appears instead of the recording start time and station name.*

❹ Currently selected programme
❺ Programme title*

** Before entering the programme title (☞ pg. 38), recording start time and station name appear instead of the programme title.*

NOTES:

- *If you do not want to use Programme Navigation function, set "PROG. NAVIGATION" to "OFF" (☞ pg. 50).*
- *You cannot edit programme title or delete tape data for the cassette with the record safety tab removed.*
- *Programme Navigation is possible with the cassettes recorded with this recorder only.*
- *Before recording, make sure the recorder's clock is set correctly.*
- *To record the programme information in this recorder's memory, you must continue to record each programme for over the minimum recording time; 8 minutes for the SP mode, 15 minutes for the LP mode or 23 minutes for the EP mode.*
- *Programme Navigation may not work properly depending on the tape being used.*
- *The programme information is stored in this recorder's memory. If the memory in this recorder should ever be damaged and the programme information lost, it is impossible to restore that information.*



Edit Programme Title

You can edit the programme titles as you like.

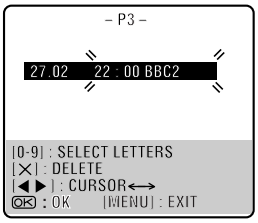
Perform steps **1** to **3** of "Navigation Playback" on page 37 before continuing.

1 Select the programme.

Press △▽ to move the highlight bar (pointer) to the programme you want to edit.

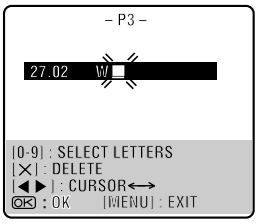
2 Access the Title Edit screen.

Press the **number key "1"**. The Title Edit screen appears.



3 Enter the programme title.

Press the **number keys** and ▷ to enter characters, then press **OK**. For details, refer to "Entering Character" on page 39.



4 Return to the normal screen.

Press **MENU**.

Entering Character

Press the appropriate **number key**, then press ▷ to enter each character.
Refer to the example below.

(Example) Enter "JVC NEWS"

1 Press **5** (JKL) once to enter "J", then press ▷.
2 Press **8** (TUV) three times to enter "V", then press ▷.
3 Press **2** (ABC) three times to enter "C", then press ▷.
4 Press **0** (␣) twice to enter "␣ (space)", then press ▷.
5 Press **6** (MNO) twice to enter "N", then press ▷.
6 Press **3** (DEF) twice to enter "E", then press ▷.
7 Press **9** (WXYZ) once to enter "W", then press ▷.
8 Press **7** (PQRS) four times to enter "S", then press ▷.

NUMBER KEY	CHARACTER
1	. , / – + ✻ ( ) 1
2	A B C 2 Ä À Á Â Ã Å Æ
3	D E F 3 È É Ë Ê
4	G H I 4 Î Ï Ì Í
5	J K L 5
6	M N O 6 Ö Ô Ò Ó Õ Ø Ñ
7	P Q R S 7
8	T U V 8 Ü Ù Û Ú
9	W X Y Z 9
0	0 ␣

NOTES:

- *If you make a mistake, press ◁ ▷ to select the character, then enter the correct character.*
- *If you want to delete a character, press ◁ ▷ to select the character, then press ✕.*

Delete Tape Data

Perform steps **1** to **3** of "Navigation Playback" on page 37 before continuing.

1 Delete the tape data.

Press ✕ for more than 3 second. All the programme data on the tape are deleted, then normal screen appears.

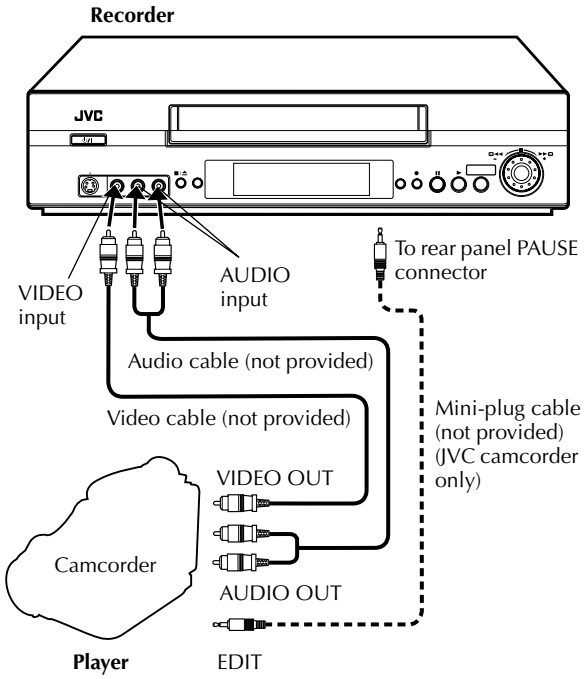
- It is impossible to delete each programme information.

NOTE:

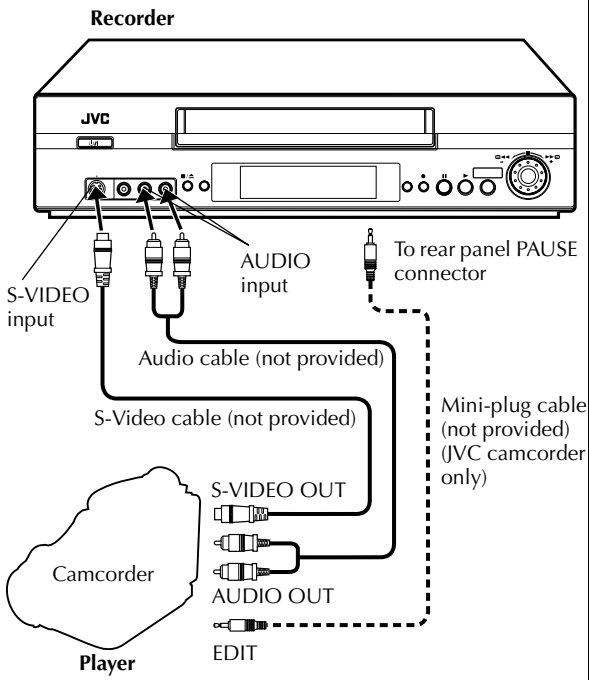
When you delete the tape data, only the tape information is deleted from the recorder's memory. The actual recording on the tape is not erased.

Edit From A Camcorder

1 **If the camcorder has no S-VIDEO output connector ...**



2 **If the camcorder has an S-VIDEO output connector ...**



You can use a camcorder as the source player and your recorder as the recording deck.

1 Make connections.

1 If the camcorder has no S-VIDEO output connector ...
... connect the camcorder's AUDIO OUT and VIDEO OUT connectors to the recorder's front panel AUDIO and VIDEO input connectors.
2 If the camcorder has an S-VIDEO output connector ...
... connect the camcorder's AUDIO OUT and S-VIDEO OUT connectors to the recorder's front panel AUDIO and S-VIDEO input connectors.

- When using a monaural camcorder, connect its AUDIO OUT connector to the AUDIO L input connector on your recorder.
- When a Master Edit Control-equipped JVC camcorder is used, the camcorder is capable of controlling the recorder. Refer to the camcorder's instruction manual for operating procedure.

2 Set the recorder's input mode.

Press **AUX** (**number key** "**0**") and/or **PR** to select "F-1" for the AUDIO and VIDEO input connectors, or "S-1" for the AUDIO and S-VIDEO input connectors, depending on the connectors being used.

3 Set the edit mode.

See "PICTURE CONTROL" on page 49.

4 Start the camcorder.

Engage the Play mode of the camcorder.

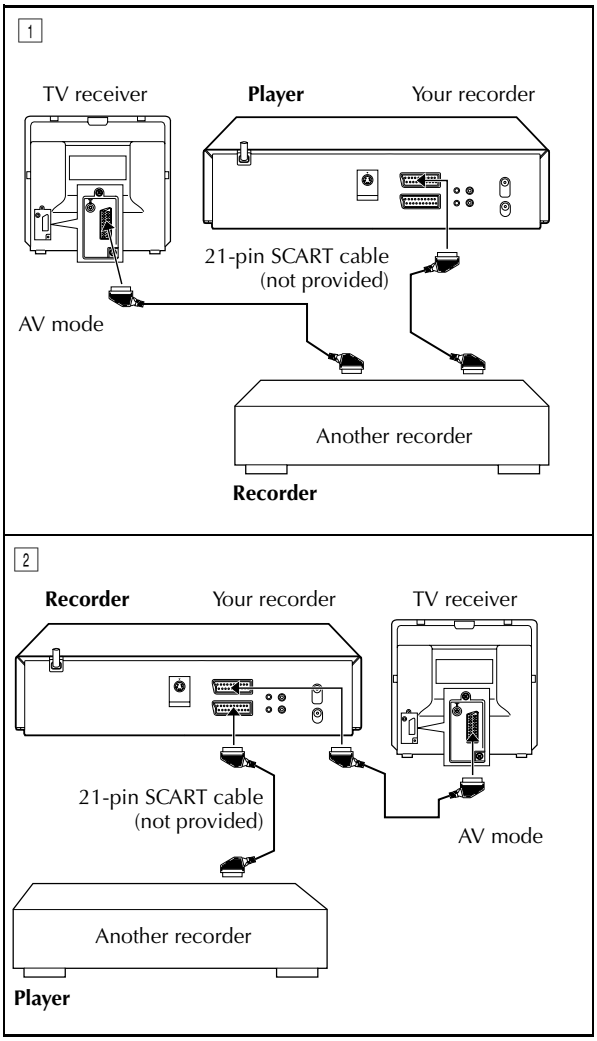
5 Start the recorder.

Engage the Record mode of the recorder.

NOTES:

- *All necessary cables can be obtained from your dealer.*
- *When you select "EDIT" to dub tapes in step **3**, be sure to select "AUTO" (or "NORM" when "B.E.S.T." is set to "OFF") after you finish dubbing the tapes.*

Edit To Or From Another Video Recorder



Advantages of S-VHS video recorders

You can edit from VHS to S-VHS, S-VHS to VHS, or, from S-VHS to S-VHS.

- From VHS to S-VHS: Record VHS playback signals in the S-VHS mode. Although the picture quality is inherently limited by that of the original, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to VHS: Because the picture quality of the source material is very high, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to S-VHS: All signals will be transferred with minimum degradation.

You can use your recorder as the source player or as the recording deck.

1 Make connections.

Connect the player's 21-pin SCART connector to the recorder's 21-pin SCART connector as illustrated.

1 When using your recorder as the source player ...
... connect its AV1 (L-1) IN/OUT connector to the recording deck.
2 When using your recorder as the recording deck ...
... connect its AV1 (L-1) IN/OUT or AV2 (L-2) IN/DECODER connector to the source player.

- If another recorder is compatible with the Y/C signal ...
... when using your recorder as the source player, set "L-1 OUTPUT" to "S-VIDEO" (☞ pg. 42).
... when using your recorder as the recording deck, set "L-2 INPUT" to "S-VIDEO" (☞ pg. 43).

2 Set the input mode of recording deck.

With this video recorder, press **AUX** (**number key** "**0**") and/or **PR** to select "L-1" for the AV1 (L-1) IN/OUT connector, or "L-2" for the AV2 (L-2) IN/DECODER connector, depending on the connector being used.

- When using another recorder as the recording deck, refer to its instruction manual.
- When using the AV2 (L-2) IN/DECODER connector, set "L-2 SELECT" to "A/V" (☞ pg. 43).

3 Set the edit mode.

See "PICTURE CONTROL" on page 49.

4 Start the source player.

Engage the Play mode of the source player.

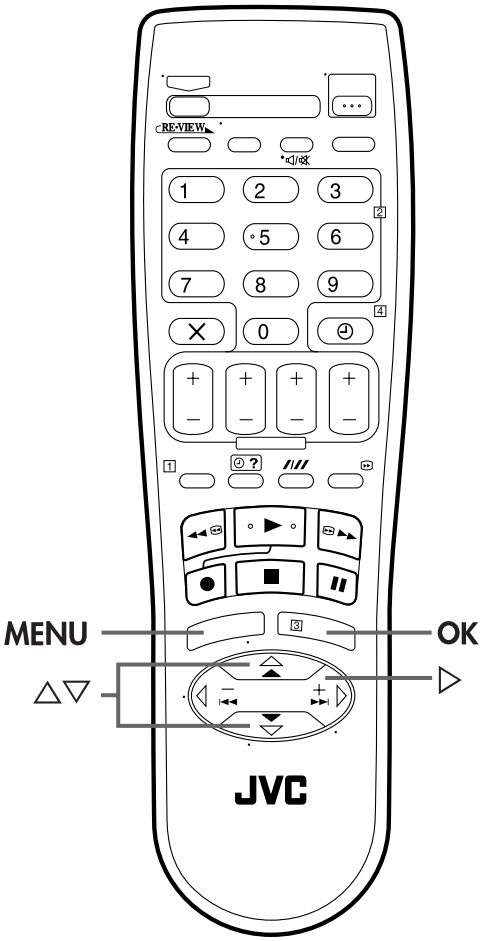
5 Start the recording deck.

Engage the Record mode of the recording deck.

NOTES:

- *All necessary cables can be obtained from your dealer.*
- *For Y/C signal input/output, be sure to use a 21-pin SCART cable that is compatible with the Y/C signal.*
- *When you select "EDIT" to dub tapes in step **3**, be sure to select "AUTO" (or "NORM" when "B.E.S.T." is set to "OFF") after you finish dubbing the tapes.*
- *When you use this recorder as the source player for editing, be sure to set "O.S.D." to "OFF" before starting (☞ pg. 49).*
- *If you are using another recorder with S-Video and Audio input/output connectors, you can connect those connectors to this recorder's S-VIDEO and AUDIO input/output connectors.*
When using your recorder as the source player ...
... connect its rear panel S VIDEO OUT and AUDIO OUT connectors to the recording deck's S-Video and Audio input connectors.
When using your recorder as the recording deck ...
... connect its front panel S-VIDEO and AUDIO input connectors to the source player's S-Video and Audio output connectors. Then, set the recorder's input mode to "S-1".

Output/Input Set



L-1 OUTPUT and L-1 INPUT Setting

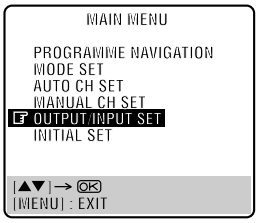
The AV1 (L-1) IN/OUT connector accepts and delivers either a composite signal (regular video signal) or a Y/C signal (a signal in which the luminance and chrominance signals are separated). Set "L-1 OUTPUT" and "L-1 INPUT" to the appropriate mode depending on the type of appliance connected to the recorder's AV1 (L-1) IN/OUT connector.

1 Access the Main Menu screen.

Press **MENU**.

2 Access the Output/Input Set screen.

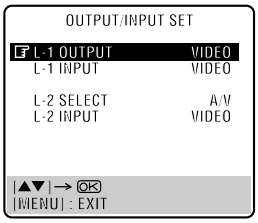
Press △▽ to move the highlight bar (pointer) to "OUTPUT/INPUT SET", then press **OK** or ▷.



3 Select the output or input mode for the AV1 (L-1) IN/OUT connector.

Press △▽ to move the highlight bar (pointer) to "L-1 OUTPUT" or "L-1 INPUT". Then, press **OK** or ▷ to select the appropriate setting.

** The default setting is **bold** in the table below.*



■ **L-1 OUTPUT**

VIDEO: If a connected appliance's input is compatible only with regular video signals, set to "VIDEO".

S-VIDEO: If a connected appliance's input is compatible with Y/C signals, set to "S-VIDEO". You can obtain high-quality S-VHS picture. (For connection, be sure to use a 21-pin SCART cable that is compatible with the Y/C signal.)

■ **L-1 INPUT**

VIDEO: If a connected appliance's output is compatible only with regular video signals, set to "VIDEO".

S-VIDEO: If a connected appliance's output is compatible with Y/C signals, set to "S-VIDEO". You can obtain high-quality S-VHS picture. (For connection, be sure to use a 21-pin SCART cable that is compatible with the Y/C signal.)

4 Return to the normal screen.

Press **MENU**.

NOTES:

- *If "L-1 OUTPUT" is set to "S-VIDEO", it is impossible to set "L-1 INPUT" to "S-VIDEO".*
- *If "L-2 SELECT" is set to "DECODER", it is impossible to set "L-1 INPUT" to "S-VIDEO".*

L-2 SELECT and L-2 INPUT Setting

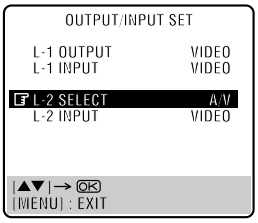
The AV2 (L-2) IN/DECODER connector accepts either a composite signal (regular video signal) or a Y/C signal (a signal in which the luminance and chrominance signals are separated). Set "L-2 SELECT" to the appropriate mode depending on the type of appliance connected to the recorder's AV2 (L-2) IN/DECODER connector. Set "L-2 INPUT" to the appropriate mode depending on the output signals of the connected appliance.

Perform steps **1** and **2** of "L-1 OUTPUT and L-1 INPUT Setting" on page 42.

1 Select the input mode for the AV2 (L-2) IN/DECODER connector.

Press △▽ to move the highlight bar (pointer) to "L-2 SELECT" or "L-2 INPUT". Then, press **OK** or ▷ to select the appropriate setting.

** The default setting is **bold** in the table below.*



■ **L-2 SELECT**

A/V:	To use this recorder as the recording deck with the player connected to the AV2 (L-2) IN/DECODER connector, or to use the satellite receiver connected to the AV2 (L-2) IN/DECODER connector.
DECODER:	To use a decoder connected to the AV2 (L-2) IN/DECODER connector.
SAT:	To view a satellite programme with the TV set while the recorder is turned off. (☞ pg. 44)

■ **L-2 INPUT**

VIDEO:	If a connected appliance's output is compatible only with regular video signals, set to "VIDEO".
S-VIDEO:	If a connected appliance's output is compatible with Y/C signals, set to "S-VIDEO". You can obtain high-quality S-VHS picture. (For connection, be sure to use a 21-pin SCART cable that is compatible with the Y/C signal.)

2 Return to the normal screen.

Press **MENU**.

NOTES:

- *If you have a satellite receiver or a decoder connected to the AV2 (L-2) IN/DECODER connector, be sure to set "L-2 SELECT" back to appropriate mode after editing.*
- *If you are not connecting a satellite receiver or a decoder to the AV2 (L-2) IN/DECODER connector, leave "L-2 SELECT" set to "A/V".*
- *The default setting is "A/V"; if the recorder's memory backup has expired due to a power cut or because the AC was removed from the recorder, "A/V" will be automatically selected when the power is restored to the recorder. If you are using a satellite receiver or a decoder, be sure to set "L-2 SELECT" back to appropriate mode.*
- *When "L-2 SELECT" is set to "SAT", "SAT" or "SAt" appears on TV screen or front display panel instead of "L-2".*
- *If "L-2 SELECT" is set to "DECODER", it is impossible to set "L-2 INPUT" to "S-VIDEO".*
- *If "L-1 OUTPUT" is set to "S-VIDEO", it is impossible to set "L-2 SELECT" to "DECODER".*

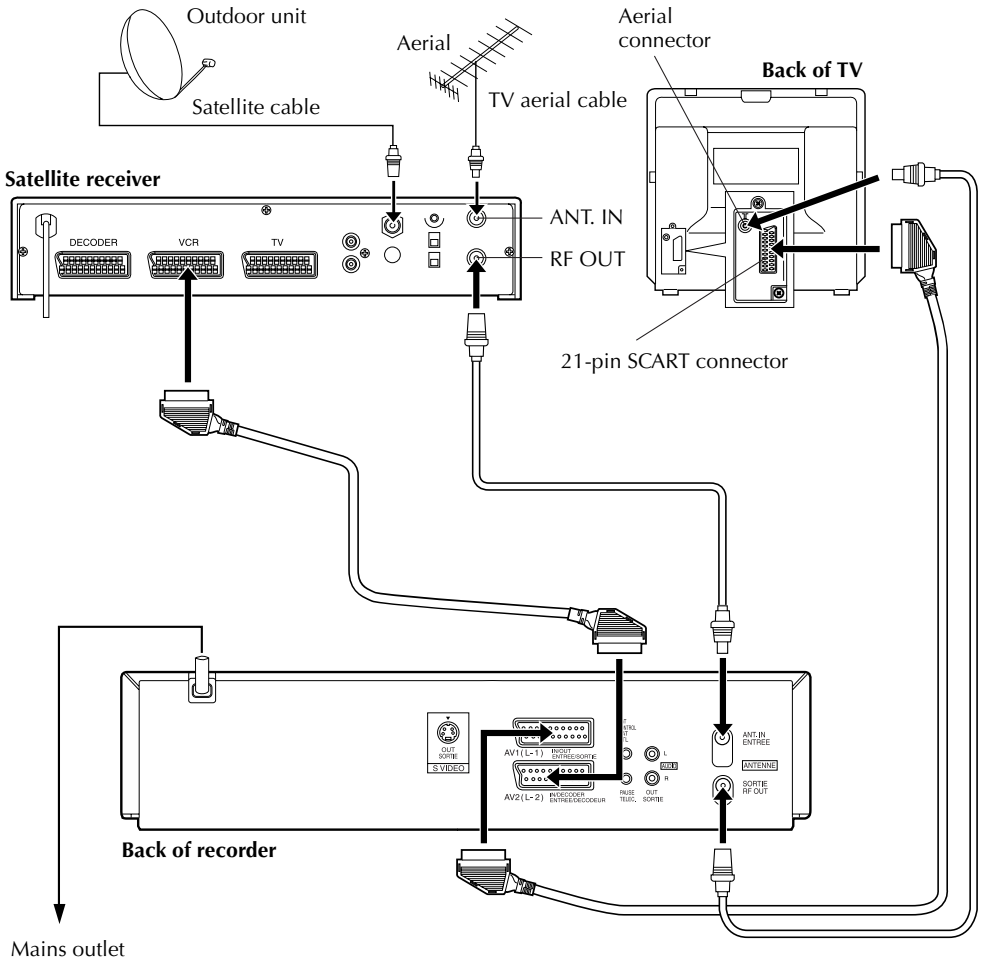
Connecting To A Satellite Receiver

Simple Connections

This is an example of simple connection if your TV has one 21-pin AV input (SCART) connector.
Connect the satellite receiver to the AV2 (L-2) IN/ DECODER connector, then connect the AV1 (L-1) IN/ OUT connector to the TV's connector.

NOTES:

- *Set "L-2 SELECT" to "A/V" (☞ pg. 43).*
- *You can use Automatic Satellite Programme Recording function (☞ pg. 35) with this connection.*
- *To record a programme via the satellite receiver, select L-2 mode by pressing **AUX** (**number key** "**0**") and/or **PR** so that "L-2" appears on the front display panel.*
- *For details, refer to the instruction manual of the satellite receiver.*



IMPORTANT

When you set "L-2 SELECT" to "SAT" (☞ pg. 43), it is possible to view a satellite broadcast with the TV set to its AV mode even if the recorder is turned off. When the recorder is in Stop mode or recording, press **TV/VCR** on the remote control to turn off the VCR indicator on the front display panel.

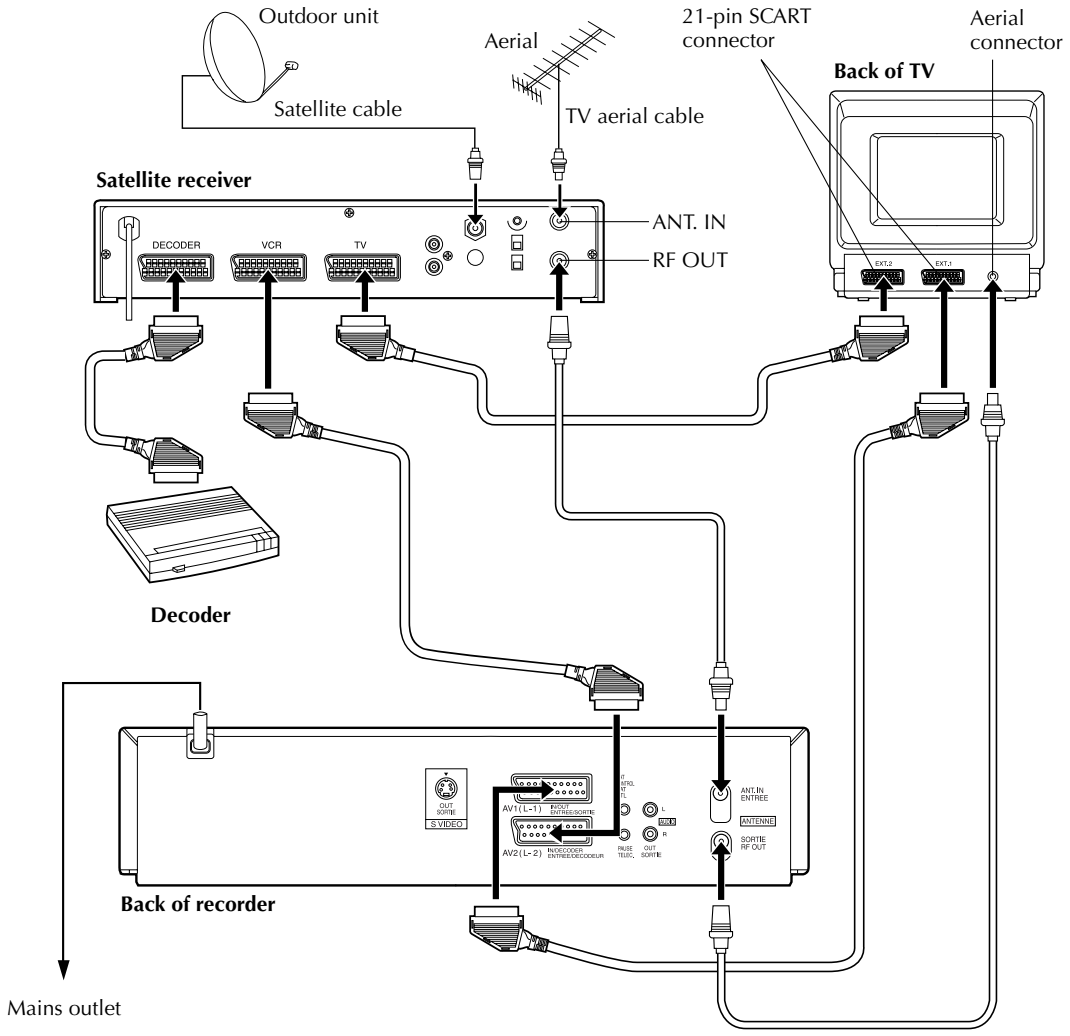
- *If you turn on the recorder when the satellite receiver's power is off, nothing appears on the TV screen. In this case, turn on the satellite receiver, or set the TV to its TV mode, or press **TV/VCR** on the remote control to set the recorder to the video mode.*

Perfect Connections

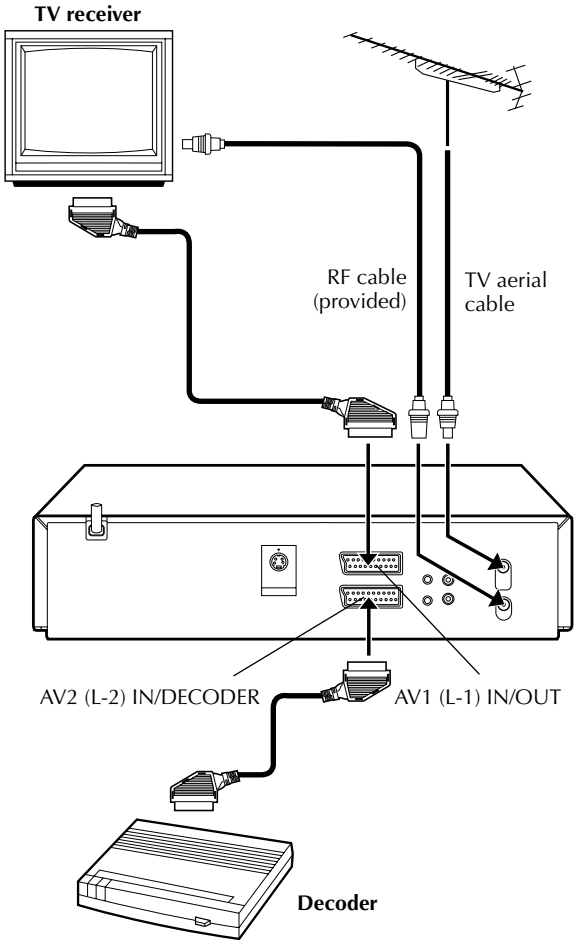
This is an example of recommended connection if your TV has two 21-pin AV input (SCART) connectors.
Connect the decoder to the satellite receiver's connector if you have a decoder, AV1 (L-1) IN/OUT connector to TV's connector, and AV2 (L-2) IN/DECODER connector to the satellite receiver's connector. Then connect the satellite receiver and TV.

NOTES:

- *Set "L-2 SELECT" to "A/V" (☞ pg. 43).*
- *You can use Automatic Satellite Programme Recording function (☞ pg. 35) with this connection.*
- *To record a programme via the satellite receiver, select L-2 mode by pressing **AUX** (**number key** "**0**") and/or **PR** so that "L-2" appears on the front display panel.*
- *To receive a scrambled broadcast, descramble the signal with the decoder connected to the satellite receiver.*
- *For details, refer to the instruction manual of the satellite receiver and decoder.*



Connecting/Using A Decoder



The AV2 (L-2) IN/DECODER connector can be used as an input connector for an external decoder (descrambler). Simply connect a decoder and you can enjoy the variety of programming that is available through scrambled channels.

1 Select the input mode.

Set "L-2 SELECT" to "DECODER". (☞ pg. 43)

2 Connect the decoder.

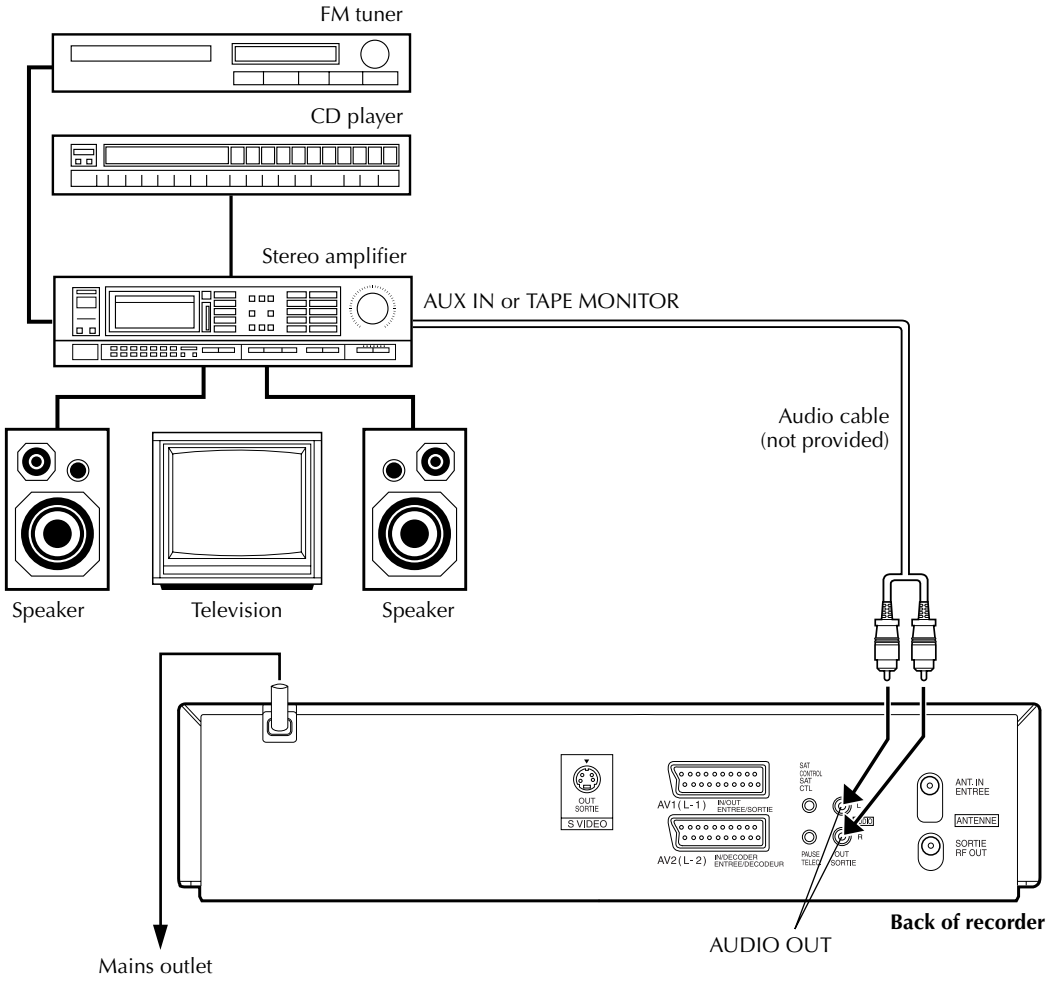
Connect your recorder's AV2 (L-2) IN/DECODER connector to the decoder's 21-pin SCART connector using a 21-pin SCART cable.

3 Set the tuner.

Perform the procedure as described in "When Receiving A Scrambled Broadcast" on page 57.

Connecting/Using A Stereo System

These instructions enable you to connect your video recorder to your Hi-Fi stereo system (if you have one) and listen to the soundtrack through the stereo.



Make connections.

Connect the AUDIO OUT L and R connectors on your video recorder to the AUX IN or TAPE MONITOR connectors on your stereo system's receiver or amplifier.

NOTE:

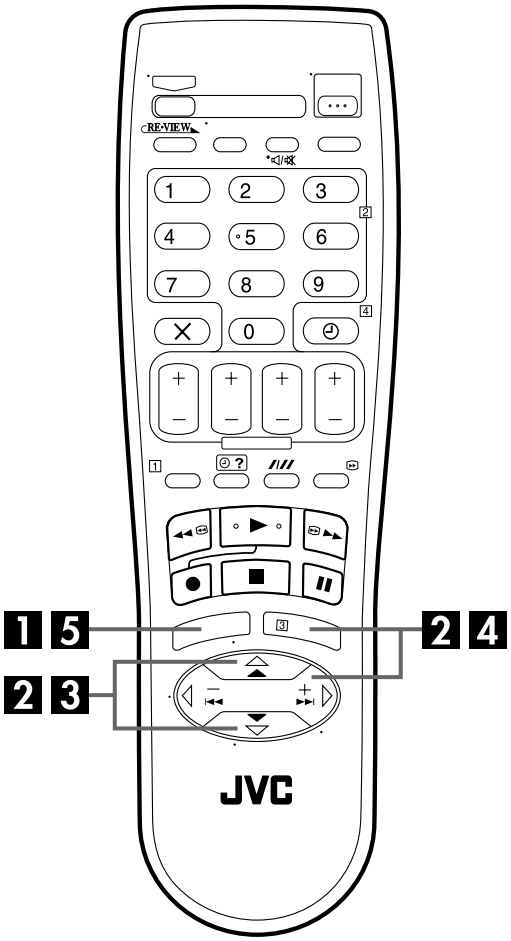
When listening to sound through the connected stereo system, turn the TV's volume down completely.

CAUTIONS:

- *This recorder has a dynamic range of more than 80 dB with regards to its Hi-Fi audio capability. It is recommended that you check the maximum level if you are going to listen to the Hi-Fi audio signals through a stereo amplifier. A sudden surge in the input level to the speakers may damage them.*
- *Some speakers and televisions are specially shielded to prevent television interference. If both are of the non-shielded type, do not place the speakers adjacent to the TV set as this can adversely affect the video playback picture.*

Mode Set

Turn on the TV and select the video channel (or AV mode).



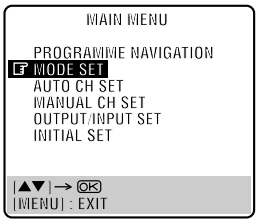
You can change various mode settings on the Mode Set screen by following the procedure described below.
● For each mode setting, see pages 49 to 52.

1 Access the Main Menu screen.

Press **MENU**.

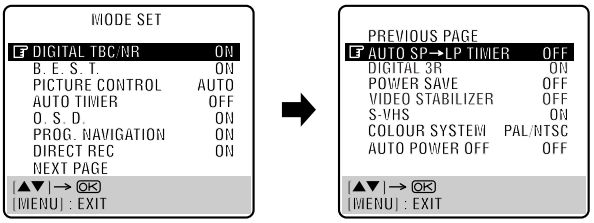
2 Access the Mode Set screen.

Press △▽ to move the highlight bar (pointer) to "MODE SET", then press **OK** or ▷.



3 Select the mode.

Press △▽ to move the highlight bar (pointer) to the item you want to change.



4 Select the mode setting.

Press **OK** or ▷.

5 Return to the normal screen.

Press **MENU**.

* The default setting is **bold** in the table below.

■ **DIGITAL TBC/NR** **ON** OFF	Your recorder is equipped with the Digital TBC (Time Base Corrector) that removes jitter from fluctuating video signals to deliver a stable picture even with old tapes and rental cassettes. The on/off of Digital 3-DNR (Noise Reduction) which cuts noise and enables clear picture reproduction is also linked to this function. We recommend that you set "DIGITAL TBC/NR" to "ON" when... ... playing back a tape recorded on a camcorder. ... playing back a tape repeatedly used. ... using this video recorder as the source player for editing. **NOTES:** ● *If you play back a tape recorded under poor TV reception condition, the picture may become more stable with Digital TBC/NR set to off.* ● *When "DIGITAL TBC/NR" is set to "ON", if you play back a tape where certain types of signals are recorded (using a PC or some character generators), the playback picture may be distorted. If this is the case, set "DIGITAL TBC/NR" to "OFF".* ● *When playing back a MESECAM tape, Digital TBC/NR does not function even though "DIGITAL TBC/NR" is set to "ON".*
■ **B.E.S.T.** **ON** OFF	You can set the B.E.S.T. (Biconditional Equalised Signal Tracking) system to "ON" or "OFF" (☞ pg. 27).
■ **PICTURE CONTROL** **AUTO** EDIT SOFT SHARP	This feature helps you to adjust the playback picture quality according to your preference. Normally select "AUTO". **AUTO**: Provides the optimised picture benefits of the B.E.S.T. Picture System. EDIT: Minimizes picture degradation during editing (recording and playback). SOFT: Reduces image coarseness when viewing overplayed tapes containing a lot of noise. SHARP: Clearer, sharper-edged picture when viewing images with lots of flat, same-coloured surfaces such as cartoons. **NOTES:** ● *When you select "EDIT", "SOFT" or "SHARP", the selected mode will not change until you select another mode.* ● *When you select "EDIT" to dub tapes, be sure to select "AUTO" after you finish dubbing the tapes.* ● *When "B.E.S.T." is "OFF", "PICTURE CONTROL" switches automatically from "AUTO" to "NORM".*
■ **AUTO TIMER** ON **OFF**	When this function is set to "ON", the timer is automatically engaged when the recorder power is turned off, and automatically disengaged when the recorder is powered back on. **NOTE:** *For safety, when "AUTO TIMER" is set to "OFF", all other recorder functions are disabled while the Timer mode is engaged. To disengage the timer, press ◴ (TIMER).*
■ **O.S.D.** **ON** OFF	When this function is set to "ON", various operational indicators appear on the TV screen. Messages appear in the selected language (☞ pg. 15, 16). **NOTES:** ● *When you use this recorder as the source player for editing, be sure to set "O.S.D." to "OFF" before starting.* ● *During playback, the operation mode indicators may be disturbed depending on the type of tape being used.*

* The default setting is **bold** in the table below.

■ **PROG. NAVIGATION** **ON** OFF	When this function is set to "ON", the recorder stores information on the recorded programmes. If you do not want to use the Programme Navigation function (☞ pg. 36), set "PROG. NAVIGATION" to "OFF". **NOTES:** ● *Programme Navigation is possible with the cassettes recorded with this recorder only.* ● *Before recording, make sure the recorder's clock is set correctly.* ● *To record the programme information in this recorder's memory, you must continue to record each programme for over the minimum recording time; 8 minutes for the SP mode, 15 minutes for the LP mode or 23 minutes for the EP mode.* ● *Programme Navigation may not work properly depending on the tape being used.* ● *The programme information is stored in this recorder's memory. If the memory in this recorder should ever be damaged and the programme information lost, it is impossible to restore that information.*
■ **DIRECT REC** **ON** OFF	When this function is set to "ON", you can easily start recording the programme that you are watching on your TV. Press and hold ● and press ► on the remote control, or press ● on the recorder. **NOTES:** ● *When you use the Direct Rec function, be sure to use a TV offering T-V LINK, etc. and connect a fully-wired 21-pin SCART cable between the recorder and the TV (☞ pg. 10).* ● *If "DIRECT REC" is set to "OFF", the ● button functions as described in "Basic Recording" (☞ pg. 24).* ● *During the Direct Rec, "– –" appears on the front display panel.* ● *When "DIRECT REC" is set to "ON", if you press any button just after pressing ● on the recorder (or ● and ► on the remote control), the recorder may not function properly.*
■ **AUTO SP→LP TIMER** ON **OFF**	When this function is set to "ON", the recorder automatically switches to LP mode to allow complete recording if there is not enough tape to record the entire programme while timer-recording in SP mode. **For Example . . .** Recording a programme of 210 minutes in length onto a 180-minute tape Approximately 150 minutes / Approximately 60 minutes SP mode | LP mode Total 210 minutes Make sure you set this function to "ON", before the timer-recording starts. **NOTES:** ● *If you have programmed the recorder to timer-record 2 or more programmes, the second programme and those thereafter may not fit on the tape if you set "AUTO SP→LP TIMER" to "ON". In this case, make sure the mode is not engaged, then set the tape speed manually during timer programming.* ● *In order to ensure that the recording fits on the tape, this feature may leave a slight non-recorded section at the end of the tape.* ● *There may be some noise and sound disturbance at the point on the tape where the recorder switches from SP to LP mode.* ● *The Auto SP→LP Timer feature is not available during ITR (Instant Timer Recording), and the feature will not work properly with any tapes longer than E-180, or with some tapes of shorter lengths.* ● *If you perform timer recording with both VPS/PDC and the Auto SP→LP Timer activated, and the programme goes beyond its originally scheduled length, there may be times when the programme cannot be recorded in its entirety.*

* The default setting is **bold** in the table below.

■ **DIGITAL 3R** **ON** OFF	When this function is set to "ON", the Digital 3R picture system applies edge correction to the luminance signal to enhance detail. **NOTES:** ● *Normally it is recommended to keep "DIGITAL 3R" set to "ON".* ● *Depending on the type of tape being used, picture quality may be better with "DIGITAL 3R" set to "OFF".* ● *If you use the recorder as the source player for editing, be sure to set "DIGITAL 3R" to "OFF" before starting.*
■ **POWER SAVE** ON **OFF**	When this function is set to "ON", you can reduce the power consumption while the recorder is turned off. **NOTES:** ● *During Power Save mode ...* *... the front display panel will be turned off.* *... the Just Clock function (☞ pg. 60) does not work.* *... the picture may be distorted momentarily when you turn on/off the recorder.* ● *Power Save does not work when ...* *... the recorder is in the Timer mode.* *... the recorder's power is turned off after timer-recording or Instant Timer Recording.* *... the Automatic Satellite Programme Recording mode is engaged (☞ pg. 35).* *... "L-2 SELECT" is set to "DECODER" or "SAT" (☞ pg. 43).*
■ **VIDEO STABILIZER** ON **OFF**	When this function is set to "ON", you can automatically correct vertical vibration in the picture when playing back unstable recordings made on another recorder. **NOTES:** ● *When you finish viewing a tape, be sure to set this function to "OFF".* ● *Regardless of the setting, this function has no effect during recording and during special effects playback.* ● *The on-screen display may jitter vertically when this function is set to "ON".* ● *To watch recordings with close-caption, set this function to "OFF".* ● *Video Stabilizer and Digital TBC/NR cannot be used at the same time. If you activate Digital TBC/NR when "VIDEO STABILIZER" is set to "ON", Video Stabilizer will be automatically turned "OFF".*
■ **S-VHS** **ON** OFF	Your recorder can record in S-VHS (Super VHS), S-VHS ET or VHS. ● **To record in S-VHS:** Set "S-VHS" to "ON". Then, insert a cassette marked "S-VHS". The S-VHS indicator lights up on the front display panel. The S-VHS recording mode is selected. ● **To record in S-VHS ET on a VHS cassette:** See "Super VHS ET (S-VHS ET)" on page 26. ● **To record in VHS:** Insert a cassette marked "VHS". Press **S-VHS ET** on the recorder. You can check the current setting ("S-VHS ET : ON" or "S-VHS ET : OFF"). If "S-VHS ET : ON" appears on the TV screen, press **S-VHS ET** again in about 5 seconds to set it to "OFF". The VHS recording mode is automatically selected regardless of the "S-VHS" mode setting. ● **To record in VHS on an S-VHS cassette:** Insert a cassette marked "S-VHS". The S-VHS indicator lights up on the front display panel. Then, set "S-VHS" to "OFF". The S-VHS indicator goes off. The VHS recording mode is selected. **NOTE:** *When playing back a tape that has been recorded in S-VHS or S-VHS ET, the S-VHS indicator lights up on the front display panel regardless of the "S-VHS" mode setting.*

* The default setting is **bold** in the table below.

■ **COLOUR SYSTEM** **PAL/NTSC** MESECAM	You can play back PAL, NTSC and MESECAM tapes, or record PAL and SECAM* signals on this recorder. Select the appropriate colour system. ** SECAM signals will be recorded as MESECAM on this recorder; MESECAM is the designation for tapes with SECAM signals that have been recorded on a MESECAM-compatible PAL video cassette recorder.* **PAL/NTSC**: To record PAL signals, or play back a PAL or NTSC tape. MESECAM: To record SECAM signals, or play back a MESECAM tape. **NOTES:** ● *It is not possible to record in S-VHS if "MESECAM" is selected. The recording mode is forced to change to VHS.* ● *If "MESECAM" is selected when the tape speed is set to EP mode, the tape speed will be forced to change to LP mode.* ● *It is not possible to select EP mode if "MESECAM" is selected.* **About NTSC Playback** ● *Some TVs shrink the picture vertically and place black bars at the top and bottom of the TV screen. This is not a malfunction on the part of either the video recorder or the TV.* ● *The picture may roll up and down. This can be corrected using the V-HOLD control found on some TVs. (This cannot be corrected if the TV does not have a V-HOLD control.)* ● *The counter and tape remaining time readings will be incorrect.* ● *During search, still, or frame-by-frame playback, the picture will be distorted, and there may be a loss of colour.* ● *Depending on the type of TV, the top and bottom portions of superimposed displays may be cut off during NTSC playback.*
■ **AUTO POWER OFF** 3H **OFF**	When this function is set to "3H", the recorder is turned off automatically if no operation is done within 3 hours. "AUTO POWER OFF IN 3 MIN" appears on the screen 3 minutes before the recorder is turned off.

SHOWVIEW® System Setup

IMPORTANT

Normally, Auto Set Up (☞ pg. 12), Preset Download (☞ pg. 14) or Auto Channel Set (☞ pg. 54) sets the Guide Program numbers automatically. You need to set the Guide Program numbers manually only in the following cases.

- *When timer-programming with the SHOWVIEW system, the channel position, where the station you wish to record is received on your recorder, is not selected,*
  OR
  when you add a channel after Auto Set Up, Preset Download or Auto Channel Set has taken place,
  —Set the Guide Program number for that station manually.
- *When you wish to timer-record a satellite programme with the SHOWVIEW system,*
  —Set the Guide Program numbers for all satellite broadcasts received on your satellite receiver.

Turn on the TV and select the video channel (or AV mode).

Guide Program Number Set

1 Access the Main Menu screen.

Press **MENU**.

2 Access the Initial Set screen.

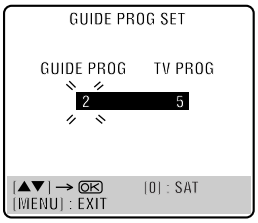
Press △▽ to move the highlight bar (pointer) to “INITIAL SET”, then press **OK** or ▷.

3 Access the Guide Program Set screen.

Press △▽ to move the highlight bar (pointer) to “GUIDE PROG SET”, then press **OK** or ▷.

4 Enter the Guide Program number.

Press △▽ to enter the Guide Program number for the desired station as shown in the TV listings. Then press **OK** or ▷.

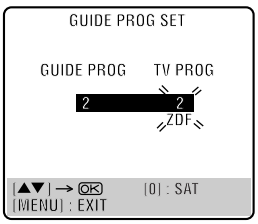


(Example) When inputting the Guide Program number 2 for ZDF.

5 Enter the receiving channel position number.

Press the **number key** “**0**” to select “TV PROG” or “SAT”. Then press △▽ to input the number of the recorder’s channel position on which the Guide Program number’s broadcast is received by the recorder or the satellite receiver. Then press **OK** or ▷.

- To timer-record a satellite programme with the SHOWVIEW system, you need to install an optional Satellite Controller and perform the procedure described in “Satellite Receiver Control Setting” (☞ pg. 17).
- Repeat steps **4** and **5** as necessary.



(Example) If ZDF is received on channel position 2.

6 Return to the normal screen.

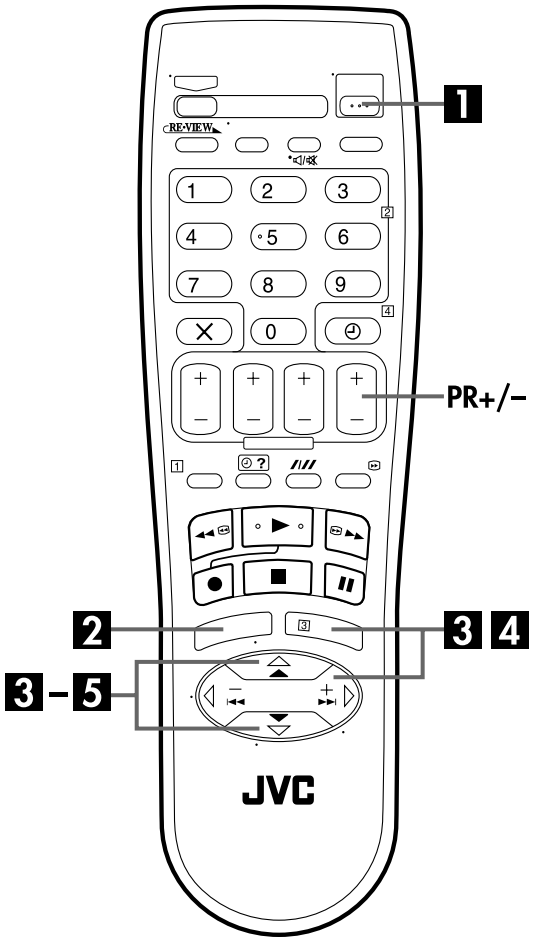
Press **MENU**.

Guide Program Number

“Guide Program (GUIDE PROG) number” refers to the assigned TV station numbers, according to broadcast area, for the SHOWVIEW timer recording. The Guide Program numbers can be found in most TV listings.

Tuner Set

Turn on the TV and select the video channel (or AV mode).



IMPORTANT

Perform the following steps only if —
— Auto Channel Set has not been set correctly by Auto Set Up or by Preset Download (☞ pg. 12, 14).
— you have moved to a different area or if a new station starts broadcasting in your area.

Your recorder needs to memorize all necessary stations in channel positions in order to record TV programmes. Auto Channel Set automatically assigns all receivable stations in your area to call them up by using the **PR** buttons without going through any vacant channels.

Auto Channel Set

1 Turn on the recorder.

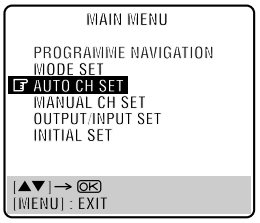
Press ⏻/I.

2 Access the Main Menu screen.

Press **MENU**.

3 Access the Auto Channel Set screen.

Press △▽ to move the highlight bar (pointer) to "AUTO CH SET", then press **OK** or ▷.

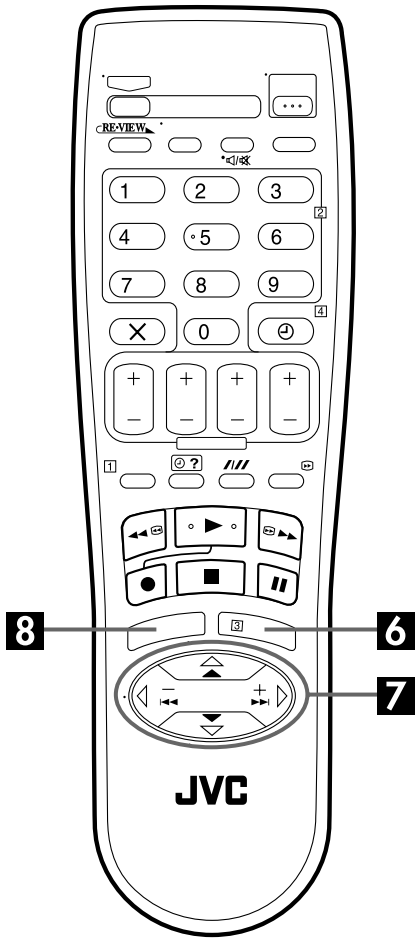


4 Select your country.

Press △▽ to move the highlight bar (pointer) to your country's name, then press **OK** or ▷.

5 Select the language.

Press △▽ to move the highlight bar (pointer) to the language of your choice.



IMPORTANT

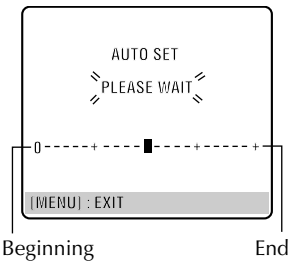
- *In certain reception conditions, station names may not be stored correctly, and Auto Guide Program Number Set may not work properly. If the Guide Program numbers are not set properly when you timer-record a TV programme using the SHOWVIEW system, the recorder will record a TV programme of a different station. When programming the timer using the SHOWVIEW system, be sure to check the desired channel is selected correctly (☞ pg. 28, "SHOWVIEW® Timer Programming").*
- *Your video recorder memorizes all detected stations even if reception of some of them is poor. You can delete those stations with an unacceptable picture (☞ pg. 57, "Delete A Channel").*

NOTES:

- *Fine tuning is performed automatically during Auto Channel Set. If you want to perform tuning manually, refer to page 58.*
- *If you perform Auto Channel Set when the aerial cable is not connected properly, "SCAN COMPLETED –NO SIGNAL–" appears on the TV screen in step **7**. When this happens, make sure of the aerial connection and press **OK**; Auto Channel Set will take place again.*
- *If no sound accompanies the picture or the audio sounds unnatural on some channels that have been stored by Auto Set Up, the TV system setting for those channels may be incorrect. Select the appropriate TV system for those channels (☞ pg. 57, "INFORMATION").*

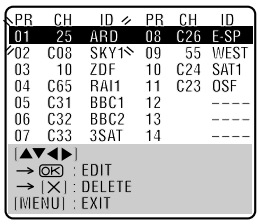
6 Perform Auto Channel Set.

Press **OK** twice.



- When you have connected the video recorder to a TV offering T-V Link via a fully-wired 21-pin SCART cable (☞ pg. 10), the recorder automatically performs the Preset Download and the T-V LINK screen will appear (☞ pg. 14).
- The Auto Set screen appears, and remains on screen while the recorder searches for receivable stations.
  As Auto Channel Set progresses, the "▮" mark on the TV screen moves from left to right. Wait until the TV screen as shown in step **7** appears.

7 View the Confirmation screen.


PR CH ID PR CH ID
01 25 ARD 08 C26 E-SP
02 C08 SKY1 09 55 WEST
03 10 ZDF 10 C24 SAT1
04 C65 RAI1 11 C23 OSF
05 C31 BBC1 12 ----
06 C32 BBC2 13 ----
07 C33 3SAT 14 ----
[▲▼◀▶]
→ [OK] : EDIT
→ [X] : DELETE
[MENU] : EXIT

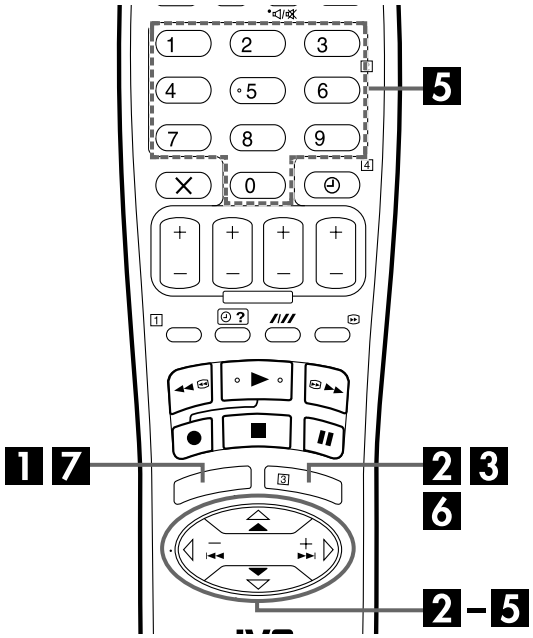
After "SCAN COMPLETED" is displayed on the TV screen for about 5 seconds, the Confirmation screen looking like the one to the right appears. The stations your recorder located appear on a Confirmation screen — channel positions (PR), channels (CH) and station names (ID – ☞ pg. 59). The blueback screen and the programme currently being broadcast by the blinking station appear alternately for 8 seconds each. To view the next page, use the △▽ ◁ ▷ button on the remote control.

- The stations located in the selected country appear at the top of the list.
- The Guide Program numbers will also be set automatically during Auto Channel Set.

8 Return to the normal screen.

Press **MENU**.

- Using the Confirmation screen, you can skip or add channel positions, enter station names and perform other operations. Refer to pages 56 – 58 for the procedures.
- Depending on reception conditions, the stations may not be stored in order, and the station names may not be stored correctly.
- For information on scrambled broadcasts, refer to page 57.



Manual Channel Set

Store channels that were not stored during Auto Set Up (☞ pg. 12), Preset Download (☞ pg. 14) or Auto Channel Set (☞ pg. 54).

1 Access the Main Menu screen.

Press **MENU**.

2 Access the Confirmation screen.

Press △▽ to move the highlight bar (pointer) to "MANUAL CH SET", then press **OK** or ▷. The Confirmation screen appears.

3 Select the channel position.

Press △▽ ◁ ▷ until an open position in which you want to store a channel begins blinking, then press **OK**. The Manual Channel Set screen appears.

(Example) To store in position 12.

PR	CH	ID	PR	CH	ID
01	25	ARD	08	C26	E-SP
02	C08	SKY1	09	55	WEST
03	10	ZDF	10	C24	SAT1
04	C65	RAI1	11	C23	OSF
05	C31	BBC1	12		----
06	C32	BBC2	13		----
07	C33	3SAT	14		----

|▲▼◀▶|
→ OK : EDIT
→ |✕| : DELETE
|MENU| : EXIT

The blueback screen and the programme currently being broadcast by the selected channel appear alternately for 8 seconds each.

4 Select the band.

Press △▽ to change the band between CH (regular) and CC (cable), then press ▷.

PR	CH	ID	FINE	DECODER
12	CH01	----	+/–	OFF

|▲▼| : SELECT
|◀▶| : CURSOR↔
OK : OK
|MENU| : EXIT

5 Input the channel.

Press the **number keys** to input the channel number you want to store.

- Input "0" before any single number entries.
- To input the registered station name (ID – ☞ pg. 59), press ▷ until "– – – –" (ID setting) begins blinking, then press △▽.
- For fine tuning adjustment, press ▷ until "+/–" begins blinking, then press △▽. While tuning, "+" or "–" appears.
- When storing a channel that sends scrambled broadcasts, press ▷ until "OFF" (Decoder setting) blinks, then press △▽ to set "DECODER" to "ON" ("OFF" is the default setting).
- When "L-2 SELECT" is set to "A/V" or "SAT", the "DECODER" setting cannot be changed (☞ pg. 43).

6 Enter new channel information.

Press **OK** and the Confirmation screen appears.

- Repeat steps **3** – **6** as necessary.

7 Close the Confirmation screen.

Press **MENU**.

- To change positions, see "Change Station Channel Position" (☞ pg. 57).
- If you wish to set station names other than the ones registered in your recorder, see "Set Stations (B)" (☞ pg. 58).

ATTENTION

Guide Program numbers are not set when channels are stored manually. If an attempt is made at timer programming with the SHOWVIEW system in this state, the "GUIDE PROG SET" screen appears; set the Guide Program numbers on this screen. (☞ pg. 29, "ATTENTION — Guide Program Number Set")
Or perform "Guide Program Number Set" (☞ pg. 53).

Delete A Channel

Perform steps **1** and **2** of "Manual Channel Set" on page 56 to access the Confirmation screen before continuing.

1 Select the item.

Press △▽ ◁ ▷ until the item you want to delete begins blinking.

2 Delete a channel.

Press ✕.
- The item directly beneath the cancelled one moves up one line.
- Repeat steps **1** and **2** as necessary.

3 Close the Confirmation screen.

Press **MENU**.

Change Station Channel Position

Perform steps **1** and **2** of "Manual Channel Set" on page 56 to access the Confirmation screen before continuing.

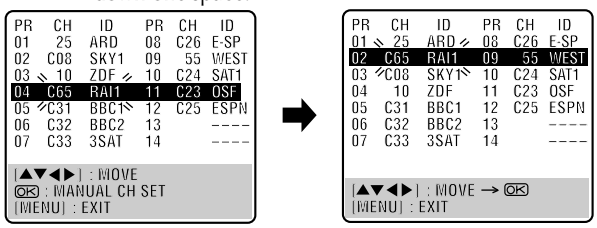
1 Select the item.

Press △▽ ◁ ▷ until the item you want to move begins blinking. Then press **OK** and the station name (ID) and its channel (CH) number begin blinking.

2 Select the new position.

Press △▽ ◁ ▷ to move the station to the new channel position, then press **OK**.

Example: If you moved the station in position 4 to position 2, the stations originally in positions 2 and 3 each move down one space.


PR CH ID PR CH ID
01 25 ARD 08 C26 E-SP
02 C08 SKY1 09 55 WEST
03 10 ZDF 10 C24 SAT1
04 C65 RAI1 11 C23 OSF
05 C31 BBC1 12 C25 ESPN
06 C32 BBC2 13 ----
07 C33 3SAT 14 ----
[▲▼◀▶] : MOVE
[OK] : MANUAL CH SET
[MENU] : EXIT
PR CH ID PR CH ID
01 25 ARD 08 C26 E-SP
02 C65 RAI1 09 55 WEST
03 C08 SKY1 10 C24 SAT1
04 10 ZDF 11 C23 OSF
05 C31 BBC1 12 C25 ESPN
06 C32 BBC2 13 ----
07 C33 3SAT 14 ----
[▲▼◀▶] : MOVE → [OK]
[MENU] : EXIT

- Repeat steps **1** and **2** as necessary.

3 Close the Confirmation screen.

Press **MENU**.

When Receiving A Scrambled Broadcast

1 Select the decoder mode.

Set "L-2 SELECT" to "DECODER" (☞ pg. 43).

2 Access the Confirmation screen.

Perform steps **1** and **2** of "Manual Channel Set" on page 56.

3 Select the position.

Press △▽ ◁ ▷ to select the channel position broadcasting scrambled programmes, then press **OK** twice.

4 Change the decoder setting.

Press ▷ until "OFF" (decoder setting) begins blinking, and set it to "ON" by pressing △▽.

5 Return to the Confirmation screen.

Press **OK**.
- Repeat steps **3** – **5** as necessary.

6 Close the Confirmation screen.

Press **MENU**.

INFORMATION

If you live in Eastern Europe, "TV SYSTEM" setting appears instead of "DECODER" setting on the Manual Channel Set screen. When you can see the picture but can hear no audio, select appropriate TV system (D/K or B/G). Normally, TV programmes are broadcasted as follows.
For Eastern Europe : D/K
For Western Europe : B/G

1. Select a country in Eastern Europe in step **4** on page 54.
2. Press ▷ until the TV system (D/K or B/G) blinking on the Manual Channel Set screen in step **4** on page 56.
3. Press △▽ to select appropriate TV System (D/K or B/G).

Set Stations (A)

Set station names that are registered in your recorder.

Perform steps **1** and **2** of "Manual Channel Set" on page 56 to access the Confirmation screen before continuing.

1 Select the item.

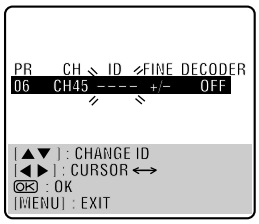
Press △▽ ◁ ▷ until the item you want begins blinking.

2 Access the Manual Channel Set screen.

Press **OK** twice.

3 Select the new station.

Press ▷ until the station name (ID) begins blinking, then press △▽ until the new station's name (ID) you want to store begins blinking. Registered station names (☞ pg. 59) appear as you press △▽.



4 Switch the stations.

Press **OK**.
- The Confirmation screen appears.
- Repeat steps **1** – **4** as necessary.

5 Close the Confirmation screen.

Press **MENU**.

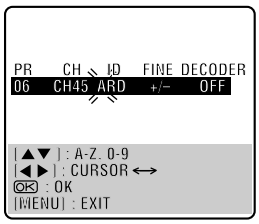
Set Stations (B)

Set station names other than the ones registered in your recorder.

Perform steps **1** and **2** of "Manual Channel Set" on page 56 to access the Confirmation screen and then perform steps **1** and **2** of "Set Stations (A)" above before continuing.

1 Select the character for station name.

Press ▷ until the first letter of the station name begins blinking.



2 Enter the new character.

Press △▽ to cycle through the characters (A–Z, 0–9, –, ✱, +, ⎵ (space)) and stop when the desired character is indicated, then press ▷ to enter. Enter the remaining characters the same way (maximum of 4). After entering all characters, press **OK**.
- The Confirmation screen appears.
- If you make a mistake, press ◁ until the incorrect character begins blinking. Then enter the correct character by pressing △▽.

3 Close the Confirmation screen.

Press **MENU**.

NOTE:

The characters available for the station name (ID) are A–Z, 0–9, –, ✱, +, ⎵ (space) (maximum of 4).

Fine-Tuning Channels Already Stored

Perform steps **1** and **2** of "Manual Channel Set" on page 56 to access the Confirmation screen before continuing.

1 Select the channel to fine-tune.

Press △▽ ◁ ▷ until the channel you want to tune begins blinking.

2 Access the Manual Channel Set screen.

Press **OK** twice. The Manual Channel Set screen appears.

3 Perform tuning.

Press ▷ until "+/–" begins blinking, then press △▽ until the picture is its clearest. Then press **OK**.
- The Confirmation screen appears.
- Repeat steps **1** – **3** as necessary.

4 Close the Confirmation screen.

Press **MENU**.

TV Station And ID List

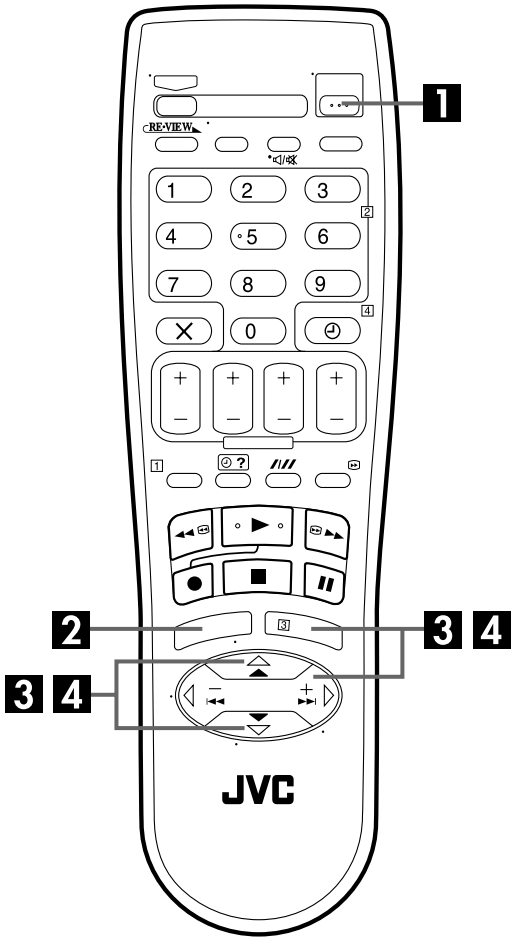
ID*	STATION NAME
1000	TV1000
3SAT	3SAT
9LIV	9LIVE
ADLT	ADULT
ANT3	ANTENA3
ARD	ARD
ARTE	ARTE
B1	BERLIN1
BBC	BBC GROUP
BBC1	BBC1
BBC2	BBC2
BR3	BAYERN3
C+	CANAL PLUS
C1	PORTUGUSES
CAN5	CANALE5
CANV	KETNET CANVAS
CH4	CHANNEL4
CH5	CHANNEL5
CHLD	CHILD
CINE	CINEMA
CLUB	TELECLUB
CMT	CMT
CNN	CNN
CSUR	ANDALUCIA
DISC	DISCOVERY
DR	DR TV
DR2	DR2
DRS	DRS
DSF	DSF
ETB1	ETB1
ETB2	ETB2
EURO	EURONEWS
EUSP	EUROSPORTS
FEMM	FEMMAN
FILM	FILM
FNET	FILMNET
FR2	France2
FR3	France3
GALA	GALAVISION
HR3	HESSEN3
INFO	INFO-KANAL
ITA1	ITALIA1
ITA7	ITALIA7
ITV	ITV1
JSTV	JSTV
KA2	KA2
KAB1	KABEL1
KAN2	KANAL2
LOCA	LOCAL
M6	M6
MBC	MBR
MCM	MCM
MDR	MDR
MOVE	MOVIE
MTV	MTV
MTV3	MTV3
N3	NORD3
N-TV	N-TV
NBC	NBC SUPER
NDR3	NDR3
NED1	NED1
NED2	NED2
NED3	NED3
NEWS	
NICK	NICKELODEON
NRK	NRK
NRK2	NRK2
ODE	ODEON
ORF1	ORF1

ID*	STATION NAME
ORF2	ORF2
ORF3	ORF3
OWL3	OWL3
PREM	PREMIERE
PRO7	PRO7
RAI1	RAI1
RAI2	RAI2
RAI3	RAI3
RET4	RETE4
21	TELE21
RTBF	RTBF1 or 2
RTL	RTL
RTL2	RTL2
RTL4	RTL4
RTL5	RTL5
RTP	RTP
S4	SCHWEIZ4
SAT1	SAT1
SBS	SBS
SF1	SF1
SF2	SF2
SHOW	SHOW
SIC	SOCIEDADE
SKY	SKY CHANNEL
SKYN	SKY NEWS
SPRT	SPORT
SRTL	SUPER RTL
STAR	STAR-TV
SVT1	SVT1
SVT2	SVT2
SWR	SUEDWEST3
TCC	TCC
TELE	TELE
TEL5	TELE5
TF1	TF1
TMC	TELEMONTECARLO
TNT	TNT INT
TRT	TRT INT
TSI	TSI
TSR	TSR
TV1	BRTN TV1
TV2	TV2
TV3	TV3
TV4	TV4
TV5	TV5
TV6	TV6
TVE1	TVE1
TVE2	TVE2
TVG	TV GALICIA
TVI	TV INDEPENDENT
TVN	TV NORGE
VCR	VIDEO
VERO	VERONICA
VH-1	VH-1
VIVA	VIVA
VIV2	VIVA2
VMTV	VIDEO MUSIC
VOX	VOX
VT4	VT4
VTM	VTM
WDR1	West1
WDR3	West3
YLE1	YLE1
YLE2	YLE2
ZDF	ZDF
ZTV	ZTV

* *The "ID" abbreviation is what is shown on-screen in lieu of the station name. The "ID" abbreviation is listed in the Confirmation screen and is displayed on the TV screen when the recorder is tuned to a different station.*

Clock Set

Turn on the TV and select the video channel (or AV mode).



Just Clock
The Just Clock function provides accurate time keeping through automatic adjustments at regular intervals, by reading data from a PDC signal.
The Just Clock option can be set "ON" or "OFF" at the Clock Set screen (the default setting is "OFF"). Press **OK** until the Just Clock setting begins blinking, then press △▽ to change the setting.
IMPORTANT: If you turn off Just Clock, the accuracy of your recorder's built-in clock may be reduced, which could adversely effect timer recording. We recommend you to keep Just Clock on. In cases where the clock setting data from a PDC signal is incorrect, however, you are advised to keep Just Clock set to "OFF".

IMPORTANT

If you performed Auto Set Up (☞ pg. 12) or Preset Download (☞ pg. 14), without ever having set the clock previously, the recorder's built-in clock is also set automatically.
Perform the following steps only if —
—Auto Clock Set has not been performed correctly by Auto Set Up or Preset Download.
OR
—the recorder's memory backup has expired.
OR
—you want to change Just Clock setting (☞ "Just Clock" in the left column).

1 Turn on the recorder.

Press ⏻/I.

2 Access the Main Menu screen.

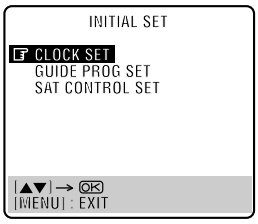
Press **MENU**.

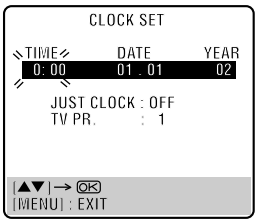
3 Access the Initial Set screen.

Press △▽ to move the highlight bar (pointer) to "INITIAL SET", then press **OK** or ▷.

4 Access the Clock Set screen.

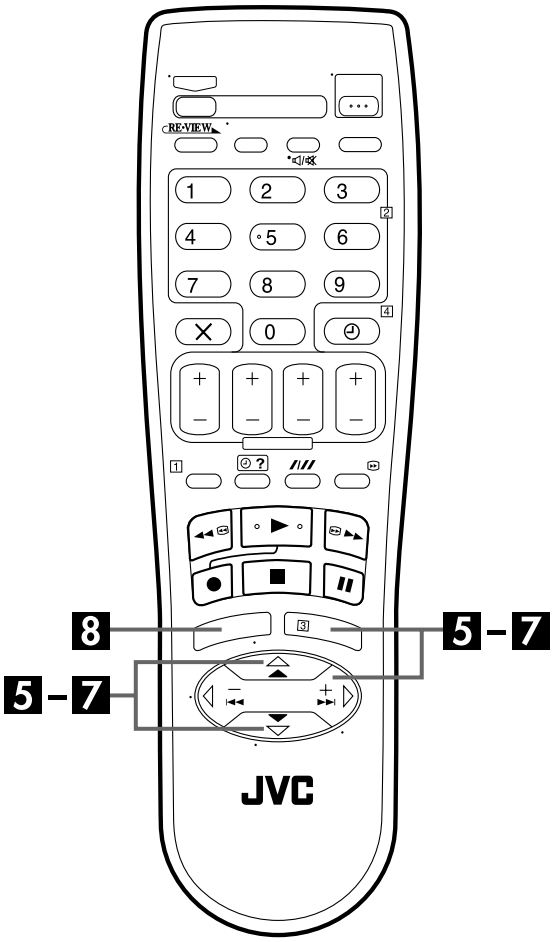
Press △▽ to move the highlight bar (pointer) to "CLOCK SET", then press **OK** or ▷. The Clock Set screen appears.





NOTE:

*When you have selected MAGYARORSZÁG, ČESKÁ REPUBLIKA, POLSKA or OTHER EASTERN EUROPE for the country setting (☞ pg. 12, 16), you cannot use Just Clock function. Skip steps **6** and **7** on page 61.*



5 Set the date and time.

Press △▽ to set the time, then press **OK** or ▷. The "DATE" display begins blinking. Repeat the same procedure to set the date and year.

- When you set the time, press and hold △▽ to change the time by 30 minutes.
- When you set the date, press and hold △▽ to change the date by 15 days.

6 Set Just Clock.

The default setting is "OFF". Set as desired by pressing △▽, then press **OK** or ▷.

- For the Just clock function, refer to "Just Clock" on page 60.
- If you set to "OFF", you can disregard the next step as you won't be able to receive regular clock adjustments.

7 Set the source channel position for clock data.

The recorder is preset to receive clock setting and adjustment data from channel position 1.
Press △▽ to set the channel position to the number representing the station transmitting clock setting data, then press **OK** or ▷.

8 Start the clock operation.

Press **MENU**.

NOTES:

- *Just Clock (when set to "ON") adjusts the recorder's built-in clock every hour, except for 23:00, 0:00, 1:00 and 2:00.*
- *Just Clock is not effective when ...*
  ... the recorder's power is on.
  ... the recorder is in the Timer mode.
  ... a difference of more than 3 minutes exists between the built-in clock's time and the actual time.
  ... the recorder is in the Automatic Satellite Programme Recording mode (☞ pg. 35).
  ... the recorder is in the Power Save mode (☞ pg. 51).
  ... "L-2 SELECT" is set to "SAT" (☞ pg. 43).
- *If Just Clock is set to "ON", the recorder's clock is automatically adjusted at the start/end of Summer Time.*
- *Just Clock may not function properly depending on the reception condition.*

Video Channel Set

Video channel (RF output channel) is the channel on which your TV receives picture and sound signals from the recorder through the RF cable.

IMPORTANT

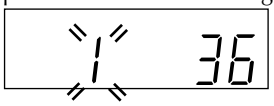
Perform the following steps only if —
— Video Chennel Set has not been done correctly by the Auto Set Up function (☞ pg. 12),
— interference appears in the TV picture after you have moved to a different area or a new station has started broadcasting in your area.
— you change the connection between your recorder and TV from RF connection to AV connection, or vice versa.

If you have connected the recorder to your TV via the AV connection (☞ pg. 10), since you do not need the video channel you have to set the video channel to off.
If you have connected the recorder to your TV via the RF connection (☞ pg. 10), you have to set the correct video channel.

Before performing the following steps:
Make sure the recorder's power is off and there is no cassette inserted in the recorder.

1 Access the Video Channel Set mode.

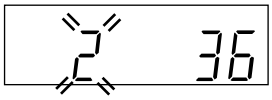
Hold down ■/⏏ on the recorder until the front display panel shows the following.



2 Set the RF output system.

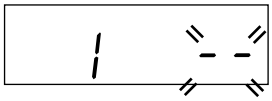
The blinking number on the display indicates the RF output system of your country.

- If you have selected MAGYARORSZÁG, ČESKÁ REPUBLIKA, POLSKA or OTHER EASTERN EUROPE for the country setting (☞ pg. 12, 16), press △▽ to set to "2".
- For other countries, set to "1". Then press **OK**. (1: B/G 2: D/K)



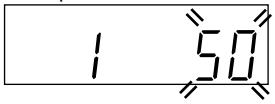
3 Set the video channel.

With AV Connection
Press **PR –** until the front display panel shows "1 – –" (or "2 – –").



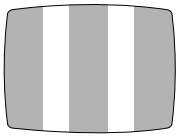
- Now the video channel is set to off.

With RF Connection
Press **PR +** or **–** to set the video recorder to a vacant channel between 22 and 69 which is not occupied by any local station in your area.
(Example) If channel 50 is available in your area



Then set your TV to UHF channel 50.

- If the two vertical white bars appear clearly on the TV screen as shown to the right, go to step **4**.
- If the two vertical white bars do not appear clearly, re-set the video recorder to another vacant channel and try again.



NOTES:

- *If you set the video recorder to a channel which is occupied by a local station or has neighbouring channels that are occupied by local stations, the picture reception quality will be affected and some interference noise will appear on the TV screen. Be sure to select a vacant channel which has no broadcast on neighbouring channels.*
- *If you cannot obtain the two vertical white bars clearly with any channel between 22 and 69, consult your JVC dealer.*

4 Exit the Video Channel Set mode.

Press **OK** on the remote control.

With AV Connection
To view picture signals from the video recorder, set your TV to its AV mode.
With RF Connection
The channel on which the TV screen in step **3** appears clearly is your video channel.
To view picture signals from the video recorder, set your TV to the video channel.

Before requesting service for a problem, use this chart and see if you can repair the trouble yourself. Small problems are often easily corrected, and this can save you the trouble of sending your video recorder off for repair.

POWER

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. No power is supplied to the recorder.	● The mains power cord is disconnected.	Connect the mains power cord.
2. The clock is functioning properly, but the recorder cannot be powered.	● "◴" is displayed on the front display panel with "AUTO TIMER" set to "OFF".	Press the ◴ button to turn the "◴" indicator off.
3. The remote control won't function.	● The batteries are discharged.	Replace the dead batteries with new ones.

TAPE TRANSPORT

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. During recording, the tape does not run. "◯" lights up and the channel display blinks on the front display panel.	● The recorder is in the Record Pause mode.	Press ► to resume recording.
2. The tape will not rewind or fast-forward.	● The tape is already fully rewound or fast-forwarded.	Check the cassette.

PLAYBACK

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. The playback picture does not appear while the tape is running.	● If you are using the RF connection, . . . the TV receiver's channel selector is not set to the video channel. . . . the recorder's video channel has not been correctly set. ● If you are using the AV connection, the TV receiver is not set to the AV mode.	If you are using the RF connection, . . . set the TV receiver to the video channel. . . . perform "Video Channel Set" (☞ pg. 62). If you are using the AV connection, set the TV to its AV mode.
2. Noise appears during visual search.	● This is normal.	
3. Noise appears during normal playback.	● The automatic tracking mode is engaged.	Try manual tracking. (☞ pg. 23)
4. The playback picture is blurred or interrupted while TV broadcasts are clear or "USE CLEANING CASSETTE" message appears on the screen.	● The video heads may be dirty.	Use a dry cleaning cassette TCL-2 or consult your JVC dealer.
5. Breaks are noticeable in Hi-Fi soundtrack.	● The automatic tracking mode is engaged.	Try manual tracking. (☞ pg. 23)

RECORDING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Recording cannot be started.	● There is no cassette loaded, or the cassette loaded has had its record safety tab removed.	Insert a cassette, or using adhesive tape, cover the hole where the tab was removed.
2. TV broadcasts cannot be recorded.	● "L-1", "L-2", "F-1", "S-1" or "SAT" has been selected as the input mode.	Set to the desired channel.
3. Tape-to-tape editing is not possible.	● The source (another video recorder, camcorder) has not been properly connected. ● All necessary power switches have not been turned on. ● The input mode is not correct.	Confirm that the source is properly connected. Confirm that all units' power switches are turned on. Set the input mode to "L-1", "L-2", "F-1" or "S-1".
4. Camcorder recording is not possible.	● The camcorder has not been properly connected. ● The input mode is not correct.	Confirm that the camcorder is properly connected. Set the input mode to "L-1", "L-2", "F-1" or "S-1".
5. "◯" and "▷" on the front display panel won't stop blinking.	● The end of the tape was reached during recording.	The programme may not have been recorded in its entirety. Next time make sure you have enough time on the tape to record the entire programme.

TIMER RECORDING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Timer recording won't work.	● The clock and/or the timer have been set incorrectly. ● The timer is not engaged.	Re-perform the clock and/or timer settings. Press ◴ and confirm that "◴" is displayed on the front display panel.
2. Timer programming is not possible.	● Timer recording is in progress.	Timer programming can't be performed while a timer recording is in progress. Wait until it finishes.
3. "◴" on the front display panel won't stop blinking.	● The timer is engaged but there's no cassette loaded.	Load a cassette with the record safety tab intact.
4. "◴", "◯" and "▷" on the front display panel won't stop blinking.	● The loaded cassette has had its record safety tab removed. ● The end of the tape was reached during timer recording.	Remove the cassette and cover the hole with adhesive tape, or insert a cassette with the record safety tab intact. The programme may not have been recorded in its entirety. Next time make sure you have enough time on the tape to record the entire programme.
5. "◴" blinks for 10 seconds and the Timer mode is disengaged.	● ◴ has been pressed when there are no programs in memory, or the timer record information has been programmed incorrectly.	Check the programmed data and re-program as necessary, then press ◴ again.
6. The SHOWVIEW system does not timer-record properly.	● The recorder's channel positions have been set incorrectly.	Refer to "Guide Program Number Set" (☞ pg. 53) and re-perform the procedure.
7. "◯" and "▷" on the front display panel won't stop blinking.	● The end of the tape was reached during Instant Timer Recording.	The programme may not have been recorded in its entirety. Next time make sure you have enough time on the tape to record the entire programme.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
8. "⚠", "◯" and "▷" on the front display panel won't stop blinking.	● The loaded cassette has had its record safety tab removed.	Remove the cassette and cover the hole with adhesive tape, or insert a cassette with the record safety tab intact.
	● The end of the tape was reached during Automatic Satellite Programme Recording.	The programme may not have been recorded in its entirety. Next time make sure you have enough time on the tape to record the entire programme.

OTHER PROBLEMS

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Whistling or howling is heard from the TV during camcorder recording.	● The camcorder's microphone is too close to the TV.	Position the camcorder so its microphone is away from the TV.
	● The TV's volume is too high.	Turn the TV's volume down.
2. When scanning channels, some of them are skipped over.	● Those channels have been designated to be skipped.	If you need the skipped channels, restore them (☞ pg. 56).
3. The channel cannot be changed.	● Recording is in progress.	Press ❚❚ to pause the recording, change channels, then press ► to resume recording.
4. Channel settings that were made manually seem to have changed or disappeared.	● After the manual settings were made, Auto Channel Set was performed.	Perform manual setting again.
5. No channels are stored in the recorder's memory.	● The TV aerial cable was not connected to the recorder when Auto Set Up was performed.	Turn off the recorder once and connect the TV aerial cable to the recorder properly, then turn on the recorder again. Then perform Auto Set Up again (☞ pg. 12).
	● The fully-wired 21-pin SCART cable was not connected between TV and the recorder when Preset Download was performed.	Turn off the recorder once and connect the fully-wired 21-pin SCART cable to the recorder properly, then turn on the recorder again. Then perform Preset Download again (☞ pg. 14).

ATTENTION

This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the recorder off and unplug the mains power cord. Then plug it in again and turn the recorder on. Take out the cassette. After checking the cassette, operate the unit as usual.

PLAYBACK

Q. What happens if the end of the tape is reached during playback or search?
A. The tape is automatically rewound to the beginning.

Q. During search, slow, still and frame-by-frame playback, I can't hear any audio. What's the problem?
A. This is normal.

Q. Can the video recorder indefinitely remain in the still mode?
A. No. It stops automatically after 5 minutes to protect the heads.

Q. When returning from variable-speed search to normal playback, the picture is disturbed. Should I be concerned about this?
A. No, it is normal.

Q. Noise bar appear during variable-speed search. What's the problem?
A. This is normal.

Q. Sometimes, during Index Search, the video recorder can't find the programme I want to see. Why not?
A. There may be index codes too close together.

RECORDING

Q. When I pause and then resume a recording, the end of the recording before the pause is overlapped by the beginning of the continuation of recording. Why does this happen?
A. This is normal. It reduces distortion at the pause and resume points.

Q. Can the video recorder indefinitely remain in the Record-Pause mode?
A. No. The video recorder goes to its Stop mode automatically after 5 minutes to protect the heads.

Q. What happens if the tape runs out during recording?
A. The video recorder stops recording, and "○" and "▷" on the front display panel won't stop blinking.

TIMER RECORDING

Q. "○" and "◴" remain lit on the front display panel. Is there a problem?
A. No. This is a normal condition for a timer recording in progress.

Q. Can I programme the timer while I'm watching a tape or a TV broadcast?
A. You won't see the picture as it is replaced by the on-screen menu, but the audio from the programme or tape you're viewing can be heard.

GENERAL

Power requirement : AC 220 V – 240 V∿, 50 Hz/60 Hz
Power consumption
  Power on : 18 W
  Power off : 3.6 W
Temperature
  Operating : 5°C to 40°C
  Storage : –20°C to 60°C
Operating position : Horizontal only
Dimensions (WxHxD)
  : 400 mm x 94 mm x 270 mm
Weight : 3.4 kg
Format : S-VHS/VHS PAL standard
Maximum recording time
  (SP) : 240 min. with E-240 video cassette
  (LP) : 480 min. with E-240 video cassette
  (EP) : 720 min. with E-240 video cassette

VIDEO/AUDIO

Signal system : PAL-type colour signal and CCIR monochrome signal, 625 lines 50 fields
Recording system : DA4 (Double Azimuth) head helical scan system
Signal-to-noise ratio: 45 dB
Horizontal resolution
  (SP/LP) : 250 lines (VHS)
  400 lines (S-VHS)
  (EP) : 220 lines (VHS)
  350 lines (S-VHS)
Frequency range : 70 Hz to 10,000 Hz (Normal audio)
  20 Hz to 20,000 Hz (Hi-Fi audio)
Input/Output : 21-pin SCART connectors:
  IN/OUT x 1, IN/DECODER x 1
  RCA connectors:
  VIDEO IN x 1, AUDIO IN x 1,
  AUDIO OUT x 1
  S-Video connector:
  IN x 1, OUT x 1

TUNER/TIMER

TV channel storage capacity
  : 99 positions (+AUX position)
Tuning system : Frequency synthesized tuner
Channel coverage : VHF 47 MHz – 89 MHz/
  104 MHz – 300 MHz/
  302 MHz – 470 MHz
  UHF 470 MHz – 862 MHz
Aerial output : UHF channels 22 – 69 (Adjustable)
Memory backup time
  : Approx. 10 min.

ACCESSORIES

Provided accessories
  : RF cable,
  Infrared remote control unit,
  “R6” battery x 2

Specifications shown are for SP mode unless otherwise specified.
E.& O.E. Design and specifications subject to change without notice.

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